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SURFACE WATER SUPPLY
of the UNITED STATES
1939

PART 10
THE GREAT BASIN

CARL G. PAULSEN, Acting Chief Hydraulic Engineer
G. H. CANFIELD, ROBERT FOLLANSBEE, H. D. McGLASHAN
T. R. NEWELL, AND A. B. PURTON
District Engineers

Prepared in cooperation with the States of
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SCOPE OF WORK

This volume is one of a series of 14 reports presenting results of measurements of stage and flow made on streams, lakes, and reservoirs in the United States during the water year ending September 30, 1939. The work was begun in 1888 in connection with special studies relating to irrigation. Measurements of flow of streams and measurements of stage and contents of lakes and reservoirs have been made at about 8,240 gaging stations in the United States and also at many gaging stations in Alaska and Hawaii. In July 1939, 4,160 gaging stations were being maintained by the Geological Survey and cooperating organizations. Miscellaneous discharge measurements were made at many other points:

In the execution of the work many State and private organizations have cooperated, either by furnishing data or by assisting in collecting data. Acknowledgments for cooperation of the first kind are made in connection with the description of each station affected; cooperation of the second kind is acknowledged on page 10.

DEFINITION OF TERMS

The units in which stream-flow data are presented in this report and other terms used herein are defined as follows:

"Second-foot" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel when the cross-sectional area is 1 square foot and the average velocity is 1 foot per second.

"Second-foot per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off in inches" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on its surface. It is used for comparing run-off with rainfall, which is usually expressed in inches.

An "acre-foot," equivalent to 43,560 cubic feet, is the quantity of water required to cover an acre to the depth of 1 foot. The term is commonly used in connection with storage for irrigation.

"Second-foot-day" is the volume of water represented by a flow of 1 second-foot for 24 hours. It is equivalent to 86,400 cubic feet, 1.983471 acre-feet, or 646,317 gallons and represents a run-off of 0.0372 inch from one square mile.

"Stage-discharge relation" is an abbreviation for the term "relation of gage height to discharge."

"Control" is a term used to designate the natural section or reach of the channel or artificial structure below the gage that determines the stage-discharge relation at the gage.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge

measurements in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of the fluctuations. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge. Gaging station structures are shown on plate 1.

Rating tables giving the discharge for any stage are prepared from the discharge measurements. The application of the mean daily gage height to these rating tables gives the mean daily discharge, from which the monthly and yearly mean discharge are computed.

The data presented for each gaging station in the area covered by this report usually comprise a description of the station, a table showing the daily discharge of the stream, and a table of monthly and yearly discharge and run-off. Skeleton rating tables are published except for those stations whose daily discharge for the greater part of the year was determined by the shifting-control method, the slope method, or other special methods.

The description of the station gives the type of gage, its latitude and longitude determined from the best available maps, and information in regard to diversions that decrease the flow at the gage, artificial regulation from pondage or storage, and the accuracy of the records. Under "Average discharge" is given the average discharge for the number of years indicated. It is given only for stations for which there are 10 or more complete years of record. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (except when it is of no importance). Unless otherwise qualified, the maximum discharge corresponds to the crest stage, obtained by use of a water-stage recorder or a nonrecording gage read at the time of the crest. Likewise the minimum represents the lowest discharge, unless otherwise qualified. The peak discharge for the year with the time of its occurrence is given below the table of monthly discharge for some stations. Selected lower peaks are also given if the peak discharge exceeded the mean discharge for that day by more than 10 percent. This supplementary information is generally not given for stations having drainage areas of less than 10 square miles or more than 10,000 square miles.

The table of daily discharge gives, for stations equipped with nonrecording gages, the discharge in second-feet corresponding to once-daily readings of the gage or the mean of twice-daily readings. For flashy floods the mean daily discharge is determined from gage-height graphs based on gage readings made once or twice daily or oftener, as stated in the station description. For stations equipped with water-stage recorders, except those on streams subject to sudden or rapid fluctuation, the table gives the discharge corresponding to the mean daily gage height. For stations subject to such fluctuation the mean daily gage height may not indicate the true mean daily discharge, which must be obtained by averaging the discharge for intervals of the day or by using the discharge integrator, an instrument for obtaining the mean daily discharge from a continuous gage-height graph and containing as an essential element the rating curve of the station.

In the table of monthly discharge the column headed "Second-foot-days" gives the sum for each month of the figures for that month given in the table of daily discharge. The column headed "Maximum" gives the maximum daily discharge and not the discharge when the water surface was at crest height. Likewise, in the column headed "Minimum" the quantity



A. DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OREG.



B. SEVIER RIVER NEAR JUAB, UTAH.



C. BEAVER RIVER NEAR BEAVER, UTAH.
GAGING-STATION STRUCTURES.

given is the minimum daily discharge. The column headed "Mean" gives the average flow in cubic feet per second during the month.

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

The accuracy of stream-flow data depends primarily on (1) the permanency of the stage-discharge relation and (2) the accuracy of observation of stage, measurements of flow, and interpretation of records.

The station description gives a statement in regard to the general accuracy of the records. "Excellent" indicates that, in general, the daily records are accurate within 5 percent; "good," within 10 percent; "fair," within 15 percent; and "poor," within 20 or a higher percent.

Yield indicated by monthly means at some stations may vary widely from natural yield, owing to diversions, amount consumed, regulation by storage, increase or decrease in evaporation due to artificial causes, or other factors. For such stations figures of "second-feet per square mile" and "run-off in inches" are not published unless reservoir records are included indicating the extent of the regulation, or satisfactory adjustments can be made for changes in contents of reservoirs or for other changes incident to use and control. Figures of second-feet per square mile and run-off in inches are also omitted if the drainage area includes large noncontributing areas or if the average annual rainfall over the drainage area is less than 20 inches.

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, so that the discharge recorded does not show the water supply available for further development, as prior appropriations below the station must first be satisfied.

The table of monthly discharge gives a general idea of the flow of the station. The table of daily discharge allows more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published, and that greater degrees of refinement in computations and records may be warranted with the increase in data and the use of improved equipment.

PUBLICATIONS

The results of stream-flow measurements are now published annually in 14 parts, each part covering an area whose boundaries coincide with natural drainage features as indicated below:

- Part
1. North Atlantic slope basins (St. John River to York River).
 2. South Atlantic slope and eastern Gulf of Mexico basins (James River to Mississippi River).
 3. Ohio River Basin.
 4. St. Lawrence River Basin.
 5. Hudson Bay and upper Mississippi River Basins.
 6. Missouri River Basin.
 7. Lower Mississippi River Basin.
 8. Western Gulf of Mexico basins.
 9. Colorado River Basin.
 10. The Great Basin.
 11. Pacific slope basins in California.
 12. Pacific slope basins in Washington and upper Columbia River Basin.
 13. Snake River Basin.
 14. Pacific slope basins in Oregon and lower Columbia River Basin.

Water-supply papers and other publications of the Geological Survey containing data in regard to the water resources of the United States may be obtained or consulted as explained below.

1. Copies may be purchased at nominal cost from the Superintendent of Documents, Government Printing Office, Washington, D. C., who will, on application, furnish lists giving prices.
2. Sets of the reports may be consulted in the libraries of the principal cities in the United States.
3. Sets are available for consultation in the local offices of the water-resources branch of the Geological Survey as follows:

East of the Mississippi River:

Albany, N. Y., 526 Federal Building.
 Asheville, N. C., 220 Post Office Building.
 Atlanta, Ga., Georgia School of Technology.
 Augusta, Maine, Statehouse.
 Boston, Mass., 945 Post Office Building.
 Charlottesville, Va., House B, Dawson Row, University of Virginia.
 Chattanooga, Tenn., 442 Post Office Building.
 College Park, Md., Engineering Building, University of Maryland.
 Columbia, S. C., 119 United States Courthouse.
 Columbus, Ohio, 404 Engineering Experiment Station, Ohio State University.
 Harrisburg, Pa., 490 Education Building.
 Hartford, Conn., 225 Capitol Building.
 Indianapolis, Ind., 511 Board of Trade Building.
 Louisville, Ky., 652 Federal Building.
 Madison, Wis., 666 State Office Building.
 Montgomery, Ala., 507 Post Office Building.
 Ocala, Fla., Post Office Building.
 St. Paul, Minn., 806 New Post Office Building.
 South Charleston, W. Va., Armor Park School Building.
 Trenton, N. J., 228 Federal Building.
 Urbana, Ill., 14 Post Office Annex.

West of the Mississippi River:

Austin, Tex., 300 State Highway Building.
 Boise, Idaho, 429 Federal Building.
 Denver, Colo., 230 Customhouse.
 Fort Smith, Ark., 6 Post Office Building.
 Helena, Mont., 406 Federal Building.
 Honolulu, Hawaii, 225 Federal Building.
 Idaho Falls, Idaho, 204 Federal Building.
 Iowa City, Iowa, 508 Hydraulic Laboratory, University of Iowa.
 Los Angeles, Calif., G-31 Post Office and Courthouse.
 Portland, Oreg., 606 Post Office Building.
 Rolla, Mo., Missouri Geological Survey Building, Missouri School of Mines and Metallurgy.
 St. Louis, Mo., 906 New Federal Building.
 Salt Lake City, Utah, 303 Federal Building.
 San Francisco, Calif., 208 Federal Office Building.
 Santa Fe, N. Mex., 204 United States Courthouse.
 Tacoma, Wash., 110 Washington Building.
 Topeka, Kans., 305 Federal Building.
 Tucson, Ariz., 210 Post Office Building.

A list of the Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

Records of flow of streams in the United States have been published in the reports tabulated as follows:

Stream-flow data in reports of the Geological Survey
 (A = Annual Report; B = Bulletin; W = Water-Supply Paper)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information....	1884 to Sept. 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884 to Dec. 31, 1892.
14th A, pt. 2	Monthly discharge (long-time records, 1871-93)....	1838 to Dec. 31, 1893.
B 131.....	Descriptions, measurements, gage heights, and ratings.	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge (also many data covering earlier years).	1895.
W 11.....	Gage heights (also gage heights for earlier years).	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also similar data for some earlier years).	1895-96.

Stream-flow data in reports of the Geological Survey--Continued

Report	Character of data	Year
W 15.....	Descriptions, measurements, and gage heights for streams east of the Mississippi River and Missouri River and tributaries above Kansas River.	1897.
W 16.....	Descriptions, measurements, and gage heights for streams west of the Mississippi River except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge (also some long-time records).	1897.
W 27.....	Measurements, ratings, and gage heights for streams east of the Mississippi River and Missouri River and tributaries.	1898.
W 28.....	Measurements, ratings, and gage heights for streams west of the Mississippi River except Missouri River and tributaries.	1898.
20th A, pt. 4	Monthly discharge (also for many earlier years)....	1898.
W 35 to 39...	Descriptions, measurements, gage heights, and ratings.	1899.
21st A, pt. 4	Monthly discharge.....	1899.
W 47 to 52...	Descriptions, measurements, gage heights, and ratings.	1900.
22d A, pt. 4	Monthly discharge.....	1900.
W 65, 66.....	Descriptions, measurements, gage heights, and ratings.	1901.
W 75.....	Monthly discharge.....	1901.

Note.— The reports that contain records for years after 1901 are given in the table on page 6.

The table on the following page gives, by years and drainage basins, the numbers of the papers on surface water supply published from 1899 to 1939. The data for any particular station will, in general, be found in the reports covering the years during which the station was maintained. For example, the data for 1910 to 1920 for any station in the area covered by part 3 are published in Water-Supply Papers 283, 303, 323, 353, 403, 433, 453, 473, and 503, which contain records for the Ohio River Basin for those years.

The records at most of the stations discussed in these reports extend over a series of years. Miscellaneous measurements at many points other than regular gaging stations have been made each year and are published under "Miscellaneous discharge measurements" at the end of each report, the streams and points of measurement listed appearing in the same relative order as the streams and gaging stations in the body of the report. An index of the records obtained prior to 1904 has been published in Water-Supply Paper 119.

Numbers of water-supply papers containing results of stream measurements, 1895-1939

(For basins included see p. 3)

Year	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1899 a...	35	b 35, 36	36	36	c 36, 37	37	37	37	d 37, 38	38, e 39	39, f 39	39	38	38
1900 g...	47, h 48	48	48, i 49	49	49, j 50	50	50	50	50	50	51	51	51	51
1901...	65, 75	65, 75	65, 75	k 65, 66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75	66, 75
1902...	b 82, 83	m 82, 83	82, 83	k 82, 83, 84	84	84	84	84	84	84	84	84	84	84
1903...	b 97, 98	97	97	k 98, 99, n 100	99	99	99	99	99	100	100	100	100	100
1904...	o 124, p 125, q 126	q 126, 127	128	k 128, 130	130, r 131	131	k 128, 131	132	132	133, s 134	134	135	135	135
1906...	o 165, p 166, q 167	q 167, 168	169	170	172	172	172	172	172	173	173	173	173	173
1907...	o 201, p 202, q 203	q 203, 204	204	204	204	204	q 205, 207	207	214, 215, t 216	213	213	213	213	213
1907-8...	203	203	203	203	203	203	203	203	214, t 215, u 216	213	213	213	213	213
1909...	203	203	203	203	203	203	203	203	203	203	203	203	203	203
1910...	203	203	203	203	203	203	203	203	203	203	203	203	203	203
1911...	301	302	305	304	306	306	307	308	309	310	311	312	312	312
1912...	321	322	323	324	325	326	327	328	329	330	331	332	332	332-C
1913...	353	353	353	354	355	356	357	358	359	360	361	362	362-A	362-B
1914...	383	383	383	384	385	386	387	388	389	390	391	392	392	392
1915...	401	402	403	404	406	407	407	408	409	410	411	412	413	414
1916...	431	432	433	434	435	436	437	438	439	440	441	442	443	444
1917...	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1918...	471	472	473	474	475	476	477	478	479	480	481	482	483	484
1919-20...	501	502	503	504	505	506	507	508	509	510	511	512	513	514
1921...	521	522	523	524	525	526	527	528	529	530	531	532	533	534
1922...	541	542	543	544	545	546	547	548	549	550	551	552	553	554
1923...	561	562	563	564	565	566	567	568	569	570	571	572	573	574
1924...	581	582	583	584	585	586	587	588	589	590	591	592	593	594
1925...	601	602	603	604	605	606	607	608	609	610	611	612	613	614
1926...	621	622	623	624	625	626	627	628	629	630	631	632	633	634
1927...	641	642	643	644	645	646	647	648	649	650	651	652	653	654
1928...	661	662	663	664	665	666	667	668	669	670	671	672	673	674
1929...	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1930...	681	682	683	684	685	686	687	688	689	690	691	692	693	694
1931...	711	712	713	714	715	716	717	718	719	720	721	722	723	724
1932...	726	727	728	729	730	731	732	733	734	735	736	737	738	739
1933...	741	742	743	744	745	746	747	748	749	750	751	752	753	754
1934...	756	757	758	759	760	761	762	763	764	765	766	767	768	769
1935...	781	782	783	784	785	786	787	788	789	790	791	792	793	794
1936...	801	802	803	804	805	806	807	808	809	810	811	812	813	814
1937...	821	822	823	824	825	826	827	828	829	830	831	832	833	834
1938...	851	852	853	854	855	856	857	858	859	860	861	862	863	864
1939...	871	872	873	874	875	876	877	878	879	880	881	882	883	884

a Rating tables and index to Water-Supply Papers 35-39 contained in Water-Supply Paper 39. Tables of monthly discharge for 1899 in 21st Annual Report, part 4.
 b James River only.
 c Gallatin River.
 d Green and Gunnison Rivers and Colorado River above Gunnison River.
 e Mojave River only.
 f Kings and Kern Rivers.
 g Rating tables and index to Water-Supply Papers 47-52 and data on precipitation, wells, and irrigation in California and Utah contained in Water-Supply Paper 52. Monthly discharge for 1900 in 22d Annual Report, part 4.
 h Mississichon and Sonnykill Rivers to James River.
 i Seacoc River.
 j Loup, Platte, and Elkhorn Rivers and tributaries below Platte River.
 k Tributaries of Mississippi River from east.
 m Lake Ontario and tributaries to St. Lawrence River proper.
 n Hudson Bay only.
 o New England rivers only.
 p Hudson River to Delaware River, inclusive.
 q Susquehanna River to Yackin River, inclusive.
 r Platte and Kansas Rivers.
 s The Great Basin in California, except Truckee and Carson River Basins.
 t Below junction with Little River.
 u Rogue, Umpqua, and Silette Rivers only.

From time to time reports have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which have been revised), as well as some records not contained in the annual series of water-supply papers. The following tables gives the numbers and titles of these reports, arranged in alphabetical order by States and drainage basins.

Reports containing compilation of discharge by States and drainage basins

Water-Supply Paper	Year ending	State or drainage basin and title
STATE		
107	1903	Alabama, Water powers of, with an appendix on stream measurements in Mississippi.
298	1912	California, Water resources of, part 1, Stream measurements in Sacramento River Basin.
299	1912	California, Water resources of, part 2, Stream measurements in San Joaquin River Basin.
300	1912	California, Water resources of, part 3, Stream measurements in the Great Basin and Pacific coast river basins.
447	1918	California, Surface water supply of the southern Pacific slope of.
597-E	1927	California, Surface water supply of Sacramento River Basin.
636-D	1927	California, Surface water supply of San Joaquin River Basin.
636-E	1927	California, Surface water supply of Pacific slope basins in.
637-A	1927	California, Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in.
74	1900	Colorado, Water resources of.
197	1905	Georgia, Water resources of.
415	1915	Massachusetts, Surface waters of.
230	1906	Nebraska, Surface water supply of.
370	1910	Oregon, Surface water supply of.
350	1937	Texas, Summary of records of surface waters of.
424	1916	Vermont, Surface waters of.
492	1919	Washington, Summary of hydrometric data in.
870	1935	Washington, Summary of records of surface waters of.
469	1921	Wyoming, Surface waters of, and their utilization.
DRAINAGE BASIN		
395	1914	Colorado River (Ariz., Colo., N. Mex., Utah, Wyo.) and its utilization, 1916.
617	1927	Colorado River, upper (Colo., Utah), and its utilization, 1929.
517	1920	Great Salt Lake Basin, Water powers of, 1924.
618	1926	Green River (Utah, Wyo.) and its utilization, 1930.
198	1906	Kennebec River Basin (Maine), Water resources of, 1907.
536	1920	Milk River. (See St. Mary and Milk Rivers.)
279	1909	New-Kanawha River Basin (N. C., Va., W. Va.), Surface water supply of, 1925.
192	1906	Penobscot River Basin (Maine), Water resources of, 1912.
358	1913	Potomac River Basin (Md., Va., W. Va., etc.), 1907.
491	1917	Rio Grande Basin (Colo., N. Mex., Tex.), Water resources of, 1888-1915.
109	1904	St. Mary and Milk Rivers (Mont., Canada), Water supply of, 1920.
		Susquehanna River Basin (Pa., Md.), Hydrography of, 1905.

In addition to the records contained in the reports noted above, records of discharge have been published in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports.

State reports containing compilation of records of discharge

State	Year ending	Report	Issued by
Alabama....	1915	Bull. 17, Water powers of Alabama....	Geological Survey of Alabama.
Arkansas....	1925	Stream-gaging report 1.....	Arkansas Geological Survey.
Connecticut.	1926	Bull. 44, Water resources of Connecticut.	State Geological and Natural History Survey.
Georgia....	1920	Bull. 38, Water powers of Georgia....	Geological Survey of Georgia.
Illinois....	1937	Stream-flow data of Illinois.....	Division of Waterways.
Do.....	1911	Water resources of Illinois.....	Rivers and Lakes Commission.
Indiana....	1927	Pub. 72, Surface water supply of Indiana.	Department of Conservation.
Do.....	^a 1930	Pub. 112, Surface water supply of Indiana.	Do.
Iowa.....	1932	Stream-flow records of Iowa.....	Iowa State Planning Board.

^a Includes records for the years 1927-30.

State reports containing compilation of records of discharge--Continued

State	Year ending	Report	Issued by
Kansas.....	^b 1919	Surface waters of Kansas.....	Kansas Water Commission.
Do.....	^c 1924	.....do.....	Do.
Do.....	^d 1928	.....do.....	Kansas State Board of Agriculture.
Do.....	^e 1935	Stream-flow data of Kansas.....	Do.
Do.....	1939	.....do.....	Do.
Kentucky.....	1920	Surface waters of Kentucky.....	Kentucky Geological Survey.
Minnesota....	1912	Water-resources investigation of Minnesota.	State Drainage Commission.
Missouri.....	1926	Reports of Bureau of Geology and Mines, vol. 20, 2d series, Water Resources of Missouri.	Missouri Geological Survey and Water Resources.
Nebraska.....	1914	1st hydrographic report.....	Bureau of Water Power, Irrigation and Drainage.
Do.....	^f 1928	2d hydrographic report.....	Do.
New Jersey....	1928	Bull. 33, Surface water supply of New Jersey.	Department of Conservation and Development.
Do.....	^g 1934	Special Report 5, Surface water supply of New Jersey.	State Water Policy Commission.
New Mexico....	1925	Surface water supply of New Mexico....	Office of the State Engineer.
North Carolina.	1923	Bull. 34, Discharge records of North Carolina streams.	Department of Conservation and Development.
Do.....	^h 1936	Bull. 39, Discharge records of North Carolina streams.	Do.
Oregon.....	1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	ⁱ 1924	Bull. 7, water resources of the State of Oregon.	Do.
Do.....	^j 1930	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	^k 1936	Bull. 9, Water resources of the State of Oregon.	Do.
Pennsylvania	1911	Report of Water Supply Commission of Pennsylvania.	Water Supply Commission of Pennsylvania.
Do.....	^l 1932	Stream-flow records of Pennsylvania...	Department of Forests and Waters.
Tennessee....	1924	Bull. 34, Water resources of Tennessee	Department of Education.
Do.....	^m 1930	Bull. 40, Surface waters of Tennessee.	Do.
Utah.....	1905	5th Biennial Report, State Engineer...	Office of the State Engineer.
Virginia.....	1927	Bull. 31, Water resources of Virginia.	Conservation and Development Commission.
Washington...	1933	Bull. 5, Monthly and yearly summaries of hydrometric data.	Department of Conservation and Development.
Wisconsin....	1914	1st report of Railroad Commission of Wisconsin to Legislature on water powers.	Railroad Commission of Wisconsin.
Do.....	ⁿ 1923	2d report of Railroad Commission of Wisconsin to Legislature on water powers.	Do.

b Includes records for the years 1895-1919.

c Includes records for the years 1919-24.

d Includes records for the years 1924-28.

e Includes records for the years 1928-35.

f Includes records for the years 1914-28.

g Includes records for the years 1928-34.

h Includes records for the years 1899-1936; records of daily and monthly discharge are not included.

i Includes records for the years 1914-24.

j Includes records for the years 1924-30.

k Includes records for the years 1930-36.

l Includes records for the years 1928-32.

m Includes average weekly discharge for the years 1920-30.

n Includes records for the years 1914-23.

Note.- In addition to the records contained in the reports listed above, the following States have issued annual or biennial reports that contain records of discharge: California, Colorado, Idaho, Indiana, Missouri, Montana, Nebraska, New Mexico, New York (also New York City Board of Water Supply), North Dakota, Oregon, Pennsylvania, Utah, Washington, and Wyoming.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table on the following page contains a list of gaging stations for the area covered by this report at which records of daily discharge were collected during the water year October 1938 to September 1939 by agencies other than the Geological Survey. The records for these stations are not contained in publications of the Geological Survey.

Record of daily discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Operated by	Remarks
Ana River.....	Below dam, about 6 miles northeast of Sumner Lake, Oreg.	1929-39	Oregon State engineer.	1929-36 in Bulls. 8 and 9 of Oregon State engineer; 1937-39 not published.
Beaver Creek.....	In Logan Canyon near Logan, Utah.	1939	Bureau of Reclamation.	Unpublished.
Big Creek.....	At Smiths ranch near Randolph, Utah.	1939	.....do.....	Do.
Big Creek Springs..	Above Randolph canal near Randolph, Utah.	1939	.....do.....	Do.
Centerville Creek..	Centerville, Utah, near mouth of canyon.	1937-39	Intermountain Forest & Range Experiment Station.	Do.
Centerville Creek tributaries.	Near Centerville, Utah (at several gaging stations).	1937-39	.....do.....	Do.
City Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1939	Salt Lake City....	(*)
Clarkston Creek....	Near Clarkston, Utah, below Newton Reservoir.	1939	Bureau of Reclamation.	Unpublished.
Collett Creek.....	Near Cokeville, Wyo.	1939	.....do.....	Do.
Collett enlargement	Near Cokeville, Wyo.	1939	.....do.....	Do.
Cottonwood Creek..	Salt Lake City, Utah, near mouth of canyon.	1898-1939	Salt Lake City....	(†)
Do.....	Near Swanlake, Idaho.	1939	Bureau of Reclamation.	Unpublished.
Do.....	Near Cleveland, Idaho, above diversions.	1939	.....do.....	Do.
Do.....	Near Cleveland, Idaho, below diversions.	1939	.....do.....	Do.
Emigration Creek..	Salt Lake City, Utah, near mouth of canyon.	1898-1939	Salt Lake City....	(*)
Ephraim Creek tributaries.	Near Ephraim, Utah (at two gaging stations).	1914-39	Intermountain Forest & Range Experiment Station.	Unpublished.
Farmington Creek tributaries.	Near Farmington, Utah (at several gaging stations).	1937-39	.....do.....	Do.
Honey Creek.....	Near Plush, Oreg....	1910-15 1921-22 1930-39	Oregon State engineer.	1910-15, 1921-22 in Geol. Survey water-supply papers; 1930-39 in Bulls. 5, 8, and 9 of Oregon State engineer; 1937-39 not published.
Little Bear River, East Fork.	Near Avon, Utah, at dam site.	1939	Bureau of Reclamation.	Unpublished.
Little Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1939	Salt Lake City....	(*)
Little Pine Creek..	Near Enterprise, Utah, below reservoir.	1939	Bureau of Reclamation.	Unpublished.
Mill Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1939	Salt Lake City....	(*)
Newton Reservoir...	Near Clarkston, Utah.	1939	Bureau of Reclamation.	Unpublished.
Otter Creek outlet..	Antimony, Utah, (former Geological Survey gaging station published as near Coyote).	1920-39 (fragmentary)	Sevier River Water Commissioner.	In Water Commissioner's annual reports.
Otter Creek.....	Near Randolph, Utah, at Rex ranch.	1939	Bureau of Reclamation.	Unpublished.
Otter Creek, Middle Fork.	.....do.....	1939	.....do.....	Do.
Do.....	Near Randolph, Utah, above diversions.	1939	.....do.....	Do.
Otter Creek, North Fork.	.....do.....	1939	.....do.....	Do.
Do.....	Near Randolph, Utah, at Rex ranch.	1939	.....do.....	Do.
Otter Creek, South Fork.	Near Randolph, Utah, above diversions.	1939	.....do.....	Do.
Do.....	Near Randolph, Utah, at Rex ranch.	1939	.....do.....	Do.

*Records prior to 1913 published in water-supply papers of Geological Survey; those prior to 1930 published in reports of Salt Lake City; those after 1930 not published.

†Fragmentary.

Record of daily discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Operated by	Remarks
Parish Creek.....	Centerville, Utah, near mouth of canyon.	1937-39	Intermountain Forest & Range Experiment Station.	Unpublished. Do.
Parish Creek tributaries.	Near Centerville, Utah (at several gaging stations).	1937-39	....do.....	Do.
Parleys Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1939	Salt Lake City....	(*)
Pinto Creek.....	Near Newcastle, Utah.	1939	Bureau of Reclamation.	Unpublished.
Provo River and streams tributary to Deer Creek Reservoir area.	Near Charleston, Utah, above backwater of Reservoir.	1938-39	....do.....	Do.
Provo River.....	Below Charleston, Utah, middle of Deer Creek Reservoir.	1938-39	....do.....	Do.
Do.....	Below Deer Creek Dam, Provo Canyon, Utah.	1938-39	....do.....	Do.
Do.....	Near Olmsted, Provo Canyon, Utah, above diversions.	1938-39	....do.....	Do.
Provo River, North Fork.	At Wildwood, Provo Canyon, Utah.	1938-39	....do.....	Do.
Ryan Creek.....	Near Cokeville, Wyo.	1939	....do.....	Do.
Sevier River.....	Delta, Utah, (former Geological Survey gaging station).	1920-39	Sevier River water commissioner.	In water commissioner's annual reports.
Silver Creek.....	Near Atkinson, Utah.	1939	Bureau of Reclamation.	Unpublished.
Smiths Fork.....	Near Cokeville, Wyo.	1939	....do.....	Do.
Strawberry tunnel outlet.	At West Portal.....	1913-39	Spanish Fork Water Users' Association.	In reports of Strawberry Valley Project and of water commissioner.
Thompson Valley Reservoir.	12 miles south of Silver Lake, Oreg.	*1922-28 1930 1932-38	Oregon State engineer.	1922-28, 1930, 1932-36 in Bulls. 8 and 9 of Oregon State engineer; 1937 and 1938 not published.
Treasureton canal	Sec. 8, T. 12 S., R. 39 E., at head near Swan Lake, Idaho.	1939	Bureau of Reclamation.	Unpublished.
Woodruff Creek.....	Near Woodruff, Utah.	1939	....do.....	Do.
Woodruff Creek, South Fork.	Near Woodruff, Utah, at Cornia ranch.	1939	....do.....	Do.
Do.....	Near Woodruff, Utah, at dam site.	1939	....do.....	Do.
Woodruff Creek, North Fork.	Near Woodruff, Utah, above diversions.	1939	....do.....	Do.
Do.....	Near Woodruff, Utah, at Cornia ranch.	1939	....do.....	Do.

*Records prior to 1913 published in water-supply papers of Geological Survey; those prior to 1930 published in reports of Salt Lake City; those after 1930 not published.

Note.- Records of discharge were also collected for many canals and ditches, and miscellaneous and fragmentary records for several natural streams. These records are published in the reports of the projects and of the water commissioners for the following river basins: Bear, Beaver, Carson, Humboldt, Jordan, Ogden, Provo, Spanish Fork, Sevier, Truckee, Walker, and Weber.

COOPERATION

The work in the several States was done under cooperative agreements as follows: In California, with the State Department of Public Works, Earl Lee Kelly and Frank W. Clark, directors, and Edward Hyatt, State engineer, and with San Bernardino and Los Angeles Counties; in Idaho, with the Department of Reclamation, R. W. Faris, succeeded by James Spofford, commissioner and the State Water Conservation Board, N. V. Sharp, chairman; in Nevada, with the office of the State engineer, Alfred Merritt Smith; in Oregon, with the office of the State engineer, Charles E. Stricklin; in Utah, with the office of the State engineer, T. H. Humpherys; and in Wyoming, with the office of the State engineer, John D. Quinn, succeeded by L. C. Bishop.

Assistance in collecting records was rendered by the following organizations and corporations: In California, by the Walker River Irrigation District; in Oregon, by the U. S. Biological Survey; in Utah, by the U. S. Bureau of Reclamation, Utah Power & Light Co., and Logan, Hyde Park & Smithfield Canal Co.

Funds for the construction, repair, and improvement of gaging stations were allocated to the Geological Survey by the Federal Emergency Administration of Public Works.

DIVISION OF WORK

The data for the stations in the several States were collected and prepared for publication under the supervision of the district engineers here named. In California (except for stations in Walker Lake Basin), H. D. McGlashan. In Idaho (except for stations on Bear River), Thomas R. Newell. In Oregon, G. H. Canfield, the work being done in collaboration with Charles E. Stricklin, State engineer. In Utah and Nevada and for stations in Walker Lake Basin in California and on Bear River in Idaho, A. B. Purton. In Wyoming, Robert Follansbee.

GAGING-STATION RECORDS

GREAT SALT LAKE BASIN

Gages on Great Salt Lake, Utah

Location.- Water-stage recorder, lat. $40^{\circ}44'15''$, long. $112^{\circ}12'30''$, in NW $\frac{1}{4}$ sec. 17, T. 1 S., R. 3 W., at Salt Lake County Boat Harbor, on southeast shore of lake, 17 miles west of Salt Lake City, Utah; and staff gage, lat. $40^{\circ}13'$, long. $112^{\circ}36'$, at Midlake, on Lucin cut-off of Southern Pacific Railroad, 30 miles west of Ogden, Weber County, Utah. Datum of Boat Harbor gages is 4,186.85 feet above mean sea level; datum of Midlake gage is 4,198.0 feet above mean sea level. Prior to October 1935 staff gage used at Saltair, 3 miles northeast of Boat Harbor gage, and datum 10 feet higher.

Records available.- September 1875 to December 1899, March to July 1904, and October 1912 to September 1939 in reports of Geological Survey. July 1903 to December 1934, in reports of U. S. Weather Bureau. Fluctuations of the lake from 1851 to 1940 are shown in Plate 2, page 124.

Extremes.- Maximum elevation during year, 4,196.5 feet May 1 at Midlake gage; minimum, 4,194.79 feet Sept. 15 at Boat Harbor gage.

1851-1939: Maximum elevation, 4,211.6 feet in 1873, computed from traditional data by E. C. La Rue (see Water-Supply Paper 517, p. 16), superseding information published in previous water-supply papers; minimum, 4,193.75 feet Nov. 15, 1935, at Saltair gage.

Remarks.- Apparent inconsistencies in readings are probably due largely to the effect of wind, as the two gages are about 40 miles apart. To compensate for wind effect, elevations given for the Boat Harbor gage are taken from a mean slope line defined by gage-height graph of several days preceding and following 12:01 a.m. for the 1st and 15th of each month. Readings on Midlake gage furnished by Southern Pacific Railroad.

Gage height, in feet, of Great Salt Lake, Utah, water year 1938-39

Day	Boat Harbor	Midlake
Oct. 1	7.98	-3.0
15	7.97	-3.1
Nov. 1	8.15	-3.0
15	8.23	-2.85
Dec. 1	8.29	-2.85
15	8.48	-2.65
Jan. 1	8.59	-2.6
15	8.70	-2.4
Feb. 1	8.79	-2.35
15	8.93	-2.25
Mar. 1	9.02	-2.15
15	9.14	-2.1
Apr. 1	9.42	-1.65
15	9.48	-1.6
May 1	9.65	-1.5
15	9.60	-1.6
June 1	9.37	-1.65
15	9.24	-1.9
July 1	9.07	-2.1
15	8.89	-2.25
Aug. 1	8.56	-2.5
15	8.34	-2.75
Sept. 1	8.07	-3.0
15	7.94	-3.15

Bear River near Evanston, Wyo.

Location.- Water-stage recorder, lat. 41°19', long. 111°01', in sec. 1, T. 15 N., R. 121 W., 300 feet upstream from highway bridge and 3 1/2 miles northwest of Evanston.

Drainage area.- 645 square miles.

Records available.- October 1913 to September 1939.

Average discharge.- 26 years, 240 second-feet (revised).

Extremes.- Maximum discharge during year, 1,100 second-feet June 1; maximum gage height, 6.10 feet Mar. 21 (ice affected); no flow Aug. 17-28, Sept. 3.
1913-39: Maximum discharge, 3,690 second-feet June 14, 1921 (gage height, 6.35 feet); no flow during some periods in 1924, 1931, 1933, 1934, 1939.

Remarks.- Records good except those for periods of ice effect, Nov. 8, 12-17, 25-30, Dec. 1, Dec. 14 to Mar. 21 (computed on basis of three discharge measurements and weather records) and those below 10 second-feet, which are fair. A few diversions for irrigation above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	69	57	60	52	54	363	820	964	26	10	1.0
2	13	81	59	60	45	56	390	820	734	23	5.6	.3
3	16	72	66	58	42	60	390	743	618	18	3.6	0
4	16	74	67	54	46	58	363	784	536	69	2.8	.1
5	17	86	69	54	49	56	318	774	478	110	1.9	1.6
6	22	74	69	55	54	58	252	766	410	120	1.7	1.8
7	27	69	69	55	54	62	234	725	378	116	1.3	1.0
8	27	71	74	53	52	72	210	689	318	104	.8	6.4
9	26	84	74	50	52	84	236	644	362	99	.7	8.1
10	27	78	66	48	52	96	239	712	442	97	.8	7.0
11	26	64	56	52	54	90	210	720	331	74	1.2	6.4
12	27	50	45	55	58	106	192	680	284	24	1.0	6.0
13	38	42	36	56	60	108	205	532	268	16	.6	5.6
14	39	44	37	54	60	94	228	518	234	13	.3	4.4
15	36	45	39	58	60	103	264	599	218	11	.3	6.4
16	112	48	45	56	58	115	305	608	186	9.2	.2	6.4
17	132	52	44	54	56	150	244	586	170	7.5	0	7.0
18	110	55	42	54	52	210	226	522	182	5.2	0	7.0
19	81	63	44	56	56	320	250	522	168	3.6	0	9.2
20	84	71	46	56	56	500	264	514	134	2.3	0	9.8
21	74	58	45	56	50	600	302	478	108	1.3	0	9.2
22	64	43	44	52	50	698	414	437	86	1.3	0	9.8
23	63	42	42	50	58	752	518	363	49	1.0	0	9.2
24	56	34	44	50	56	766	500	345	38	.8	0	9.2
25	49	36	40	54	54	824	460	406	47	1.0	0	11
26	50	37	40	52	50	806	356	328	67	1.7	0	11
27	50	38	40	56	50	586	316	284	47	1.9	0	13
28	50	42	42	58	50	287	455	281	36	16	0	14
29	47	46	48	56	-	272	599	308	29	9.8	12	13
30	52	52	50	58	-	275	712	398	27	21	2.0	14
31	59	-	54	58	-	316	-	586	-	63	1.3	-
Month												
October	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet							
October	1,512	132	12	48.8	3,000							
November	1,720	86	34	57.3	3,410							
December	1,592	74	35	51.4	3,160							
Calendar year 1938	82,867.9	1,690	5.4	227	164,400							
January	1,698	80	48	54.8	3,370							
February	1,466	60	42	53.0	2,960							
March	8,632	824	54	278	17,120							
April	10,004	712	192	335	19,840							
May	17,492	820	261	564	34,690							
June	7,828	964	27	261	16,530							
July	1,066.5	120	.8	34.4	2,120							
August	49.1	12	0	1.55	95							
September	208.9	14	0	6.96	414							
Water year 1938-39	53,286.5	964	0	146	105,700							

Bear River at Border, Wyo.

Location.- Water-stage recorder, lat. 42°11', long. 111°03', in sec. 15, T. 14 S., R. 46 E., in Idaho, a quarter of a mile west of Wyoming-Idaho State line and half a mile west of Border.

Drainage area.- 2,490 square miles.

Records available.- October 1937 to September 1939.

Extremes.- Maximum discharge during year, 1,950 second-feet Mar. 23 (gage height, 6.69 feet); minimum daily, 56 second-feet Aug. 29.
1937-39: Maximum discharge, that of Mar. 23, 1939; minimum daily, that of Aug. 29, 1939.

Remarks.- Records good except those for Mar. 23 to Aug. 18, which are excellent. Discharge for periods of ice effect, Nov. 7, 8, Nov. 11 to Mar. 21, computed on basis of three discharge measurements and records for station at Harer, Idaho. Diversions for irrigation above station. Results of six discharge measurements published by Bureau of Reclamation.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Nov. 6. Nov. 9, 10, Aug. 19 to Sept. 15, Sept. 25-30)

0.5	48	1.7	172	5.7	700
1.0	69	2.3	288	5.8	1,480
1.5	108	2.9	430	6.5	1,865

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	174	212	175	175	165	170	888	763	392	162	117	58
2	176	216	180	175	160	170	758	772	362	158	114	58
3	174	210	180	175	160	175	748	772	348	155	112	58
4	169	214	185	170	160	175	780	792	354	152	112	58
5	174	222	185	170	165	175	836	844	350	149	118	59
6	177	206	185	165	165	175	792	904	332	146	118	61
7	185	230	190	160	165	180	740	928	332	144	117	62
8	218	230	190	160	160	180	690	900	341	151	112	66
9	212	224	190	164	160	185	685	848	328	157	111	66
10	210	214	190	160	165	190	634	844	344	164	105	66
11	210	205	185	160	155	190	595	872	359	167	102	66
12	195	200	180	160	155	195	564	988	321	160	101	69
13	192	195	170	160	155	200	578	948	288	155	102	71
14	188	190	165	165	160	208	581	864	284	149	102	71
15	186	190	170	160	160	220	626	816	297	142	100	71
16	192	200	170	160	155	240	651	784	286	137	98	74
17	216	205	175	160	155	285	665	744	288	131	102	79
18	226	205	175	160	155	510	672	686	290	126	98	79
19	226	210	175	165	160	710	686	620	288	120	90	79
20	222	210	170	160	160	1,100	732	584	282	128	85	79
21	197	200	170	160	160	1,400	748	620	274	125	82	77
22	194	195	170	165	160	1,790	766	560	260	120	68	86
23	184	190	165	165	165	1,820	792	518	254	120	64	104
24	192	180	165	165	165	1,840	812	497	242	117	60	105
25	188	175	165	165	160	1,630	792	497	228	114	60	120
26	183	170	170	160	160	1,550	696	466	216	112	59	128
27	177	170	170	160	165	1,430	662	420	201	105	60	129
28	179	170	175	160	165	1,360	672	390	185	105	58	123
29	183	170	180	160	-	1,240	690	357	169	108	56	122
30	186	170	175	166	-	1,120	696	314	165	114	57	122
31	195	-	175	165	-	944	-	360	-	117	58	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	5,990		226	169	193	11,880						
November.....	5,978		230	170	199	11,860						
December.....	5,465		190	165	176	10,840						
Calendar year 1938.....	163,172		1,770	105	447	323,600						
January.....	5,074		175	160	164	10,060						
February.....	4,485		165	155	160	8,900						
March.....	21,757		1,840	170	702	43,150						
April.....	21,135		636	564	704	41,920						
May.....	21,241		988	314	685	42,130						
June.....	8,590		382	165	288	17,040						
July.....	4,209		157	105	135	8,350						
August.....	2,798		118	56	90.3	5,550						
September.....	2,453		129	58	82.1	4,890						
Water year 1938-39.....	109,185		1,840	56	299	216,600						

Bear River at Harer, Idaho

Location.- Water-stage recorder, lat. 42°11'50", long. 111°10'05", in NW¼ sec. 23, T. 14 S., R. 45 E., 400 feet downstream from Sheep Creek, three-quarters of a mile north of Harer siding on Oregon Short Line Railroad, and 5 miles east of Dingle.

Drainage area.- 2,780 square miles.

Records available.- June 1913 to September 1916, January 1919 to September 1939.

Average discharge.- 23, years, 532 second-feet.

Extremes.- Maximum daily discharge during year, 2,360 second-feet Mar. 24; minimum daily, 87 second-feet Aug. 27.

1913-16, 1919-39: Maximum discharge, 3,860 second-feet June 2, 1920 (gage height, 10.61 feet); minimum daily discharge, 26 second-feet Aug. 21-27, 1934.

Remarks.- Records good except those for period of missing gage heights, Oct. 4-29, those for period of ice effect, Nov. 5 to Mar. 23 (computed on basis of three discharge measurements and unpublished records of Bear River at Stewart Dam and Rainbow canal), and those for periods of missing gage heights, June 10-12, 20-27, Sept. 5-12 (interpolated), all of which are fair. Many diversions above station for irrigation. Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	223	301	235	225	185	205	1,050	860	454	230	148	96
2	229	311	235	225	185	205	970	898	465	218	146	93
3	232	308	240	225	185	205	907	907	446	213	144	90
4	240	304	245	225	185	205	911	915	427	207	142	90
5	245	285	245	225	185	210	961	923	408	205	140	92
6	255	270	245	220	185	210	978	982	408	227	140	94
7	265	280	250	220	185	210	915	1,060	405	213	142	97
8	270	290	255	220	185	210	865	1,060	401	207	140	99
9	285	315	255	220	185	210	851	1,020	416	200	135	100
10	300	305	255	215	185	215	806	961	409	194	131	101
11	305	295	250	215	185	225	776	1,030	402	200	120	102
12	305	280	245	215	185	235	726	1,080	394	205	124	103
13	295	265	235	215	185	245	706	1,140	387	200	122	104
14	280	250	225	210	185	250	718	1,060	353	189	124	106
15	285	250	225	210	185	255	739	978	376	187	124	108
16	295	280	230	210	185	280	781	940	372	187	122	108
17	300	275	230	210	185	300	806	928	369	177	120	108
18	305	275	230	205	185	500	810	860	369	171	120	111
19	315	285	230	205	185	800	823	785	369	164	119	113
20	325	280	230	200	190	1,100	852	726	355	160	115	115
21	320	270	235	200	190	1,440	881	702	341	156	111	115
22	310	260	235	195	190	1,680	898	698	327	154	110	117
23	305	245	230	195	195	2,280	923	658	313	150	100	124
24	300	235	230	195	195	2,360	965	634	300	148	95	140
25	295	225	230	190	195	2,120	982	618	286	142	92	144
26	295	220	230	190	200	1,860	944	614	272	142	89	152
27	290	220	230	190	200	1,770	839	582	258	142	87	158
28	285	220	230	190	200	1,650	827	538	244	140	89	156
29	280	225	235	190	-	1,500	835	496	241	140	101	152
30	284	230	230	190	-	1,380	823	442	241	144	104	150
31	282	-	230	187	-	1,210	823	427	-	148	100	-
Month	Second-foot-days	Maximum	Minimum	Meer	Run-off in acre-feet							
October.....	8,780	325	223	283	17,410							
November.....	8,064	315	220	268	15,970							
December.....	7,335	255	225	237	14,580							
Calendar year 1938.....	197,869	2,080	166	542	392,400							
January.....	6,427	225	187	207	12,750							
February.....	5,270	200	185	188	10,450							
March.....	25,505	2,360	205	823	50,590							
April.....	25,848	1,050	706	862	51,270							
May.....	25,522	1,140	427	823	50,620							
June.....	10,838	465	241	361	21,500							
July.....	5,560	230	140	179	11,030							
August.....	3,696	148	87	119	7,330							
September.....	3,438	158	90	115	6,820							
Water year 1938-39.....	136,273	2,360	87	373	270,300							

Bear River at Alexander, Idaho

Location.- Water-stage recorder, lat. 42°39', long. 111°42', in NW¼ sec. 17, T. 9 S., R. 41 E., 600 feet downstream from Soda hydroelectric plant of Utah Power & Light Co., half a mile southeast of Alexander, and 5 miles downstream from Soda Creek.

Drainage area.- 3,840 square miles.

Records available.- March 1911 to September 1916, April 1919 to September 1939.

Average discharge.- 24 years (1911-16, 1919-20, 1921-39), 797 second-feet.

Extremes.- Maximum daily discharge during year, 1,240 second-feet July 26; minimum daily, 44 second-feet Mar. 12.

1911-16, 1919-39: Maximum discharge, 4,590 second-feet May 9, 1922; maximum gage height, 15.95 feet Dec. 11, 1919; minimum discharge, about 28 second-feet at times when reservoir gates are closed.

Remarks.- Records good. Discharge for periods of missing gage heights, Jan. 29 to Feb. 1, Apr. 14-27, June 11, 12, computed on basis of output of hydroelectric plant. Many diversions for irrigation above station. Regulation caused by storage in Bear Lake Reservoir and operations at Soda hydroelectric plant. Records collected by Utah Power & Light Co. under general supervision of Geological Survey in connection with a Federal Power Commission project.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	304	429	532	448	410	301	511	370	864	448	671	775
2	345	472	529	405	308	337	573	370	797	550	652	623
3	459	567	277	606	225	314	573	370	673	428	598	396
4	480	479	156	445	122	168	482	360	455	380	552	542
5	422	565	377	379	158	46	431	360	697	668	922	773
6	383	251	481	253	289	352	476	327	697	761	724	856
7	369	533	447	240	209	537	493	360	714	835	863	778
8	357	622	523	185	233	625	404	353	546	860	908	719
9	202	600	221	330	250	699	415	451	450	701	905	627
10	379	632	410	575	287	255	420	501	485	966	862	463
11	433	450	255	331	216	131	415	596	470	1,040	854	630
12	443	516	500	385	147	44	394	636	630	1,180	798	455
13	443	505	503	304	281	123	375	647	586	1,140	536	216
14	456	522	565	202	294	370	420	735	636	1,030	864	266
15	439	544	572	188	262	295	430	1,220	664	1,030	923	290
16	276	530	464	269	428	253	330	1,030	627	758	937	366
17	625	586	377	304	380	389	475	1,090	469	1,130	936	219
18	657	490	401	425	268	58	560	1,090	434	1,120	956	632
19	656	425	551	205	134	38	520	1,060	510	1,120	734	638
20	600	316	671	218	394	204	285	629	519	1,060	495	635
21	504	483	474	233	455	385	350	759	474	1,140	978	340
22	407	487	453	318	242	1,010	180	943	572	1,060	998	317
23	302	663	428	320	398	996	115	928	550	840	906	236
24	639	498	450	328	414	1,130	265	941	448	841	931	188
25	680	535	114	313	329	912	275	1,020	467	1,220	944	264
26	683	494	310	320	50	862	390	963	668	1,240	870	447
27	700	327	632	263	239	771	430	946	657	1,190	539	509
28	644	713	390	142	314	706	370	764	619	1,090	945	491
29	537	706	473	95	-	651	293	789	547	991	956	514
30	278	733	491	435	-	644	238	720	585	820	984	529
31	622	-	514	95	-	542	-	822	-	1,110	940	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				14,704	700	202	474	29,160				
November.....				15,281	733	251	509	30,273				
December.....				13,440	632	114	434	26,660				
Calendar year 1938.....				187,009	1,040	46	512	370,900				
January.....				9,557	606	95	308	18,960				
February.....				7,746	455	50	277	15,360				
March.....				14,188	1,130	44	458	26,140				
April.....				11,888	573	115	396	23,520				
May.....				22,150	1,220	327	715	43,930				
June.....				17,510	864	434	584	34,730				
July.....				28,767	1,240	380	928	57,060				
August.....				26,001	998	495	839	51,970				
September.....				14,613	836	188	487	29,980				
Water year 1938-39.....				195,825	1,240	44	537	388,400				

Bear River near Weston, Idaho

Location.- Water-stage recorder, lat. 42°01'50", long. 111°55'15", in SW¼SE¼ sec. 17, T. 18 S., R. 39 E., at Weston-Fairview highway bridge, 3 miles east of Weston.

Records available.- October 1919 to December 1932 and February 1934 to September 1939. October 1889 to January 1917, at site near Preston, Idaho; records equivalent.

Average discharge.- 18 years (1919-32, 1934-39), 954 second-feet.

Extremes.- Maximum daily discharge during year, 1,950 second-feet Mar. 24; minimum daily, 100 second-feet Jan. 9.

1919-32, 1934-39: Maximum discharge, 6,100 second-feet May 8 or 9, 1922 (gage height, 12.1 feet, from floodmarks), from rating curve extended above 4,000 second-feet; minimum daily discharge, 30 second-feet Apr. 29, 1934, and June 27, 1937.

Remarks.- Records fair. Discharge for periods of missing gage height, Nov. 23, Nov. 26 to Jan. 11, Jan. 23 to Mar. 14, and May 29-31, computed on basis of unpublished records for station at Oneida. West Cache canal and many irrigation ditches divert water above station. Regulation caused by Bear Lake Reservoir and power plants above gage. Records furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	665		720	-		1,340	648	343	218	600	696
2	483	992		560	-		1,010	738	483	204	489	788
3	184	808		850	-		1,250	704	435	254	551	585
4	503	567		610	-		1,110	618	495	273	495	498
5	441	812		750	-		1,120	612	238	276	424	501
6	406	672		1,090	-		1,170	696	313	591	403	573
7	430	658		900	-	600	960	365	365	732	525	780
8	516	534		250	-		466	466	341	612	742	752
9	474	806		100	-		806	749	452	558	822	756
10	276	788		230	-		988	615	385	662	603	756
11	495	836		690	-		924	395	189	876	714	483
12	519	798		805	-		735	372	309	714	766	693
13	489	651		519	-		833	432	309	640	661	522
14	654	672		648	-		1,080	992	441	1,190	558	606
15	630	651		760	-	498	822	609	304	816	784	414
16	483	618		306	-	686	480	421	452	724	693	353
17	665	732		372	-	830	710	924	385	822	876	466
18	591	724		543	-	682	679	880	480	848	549	495
19	555	728		564	-	742	1,080	582	341	665	710	329
20	662	630		531	-	876	679	546	246	952	570	770
21	888	658		411	-	1,060	836	543	269	872	774	802
22	567	738		567	-	668	483	465	486	627	607	416
23	651	865		540	-	1,650	435	483	466	558	618	300
24	543	904		670	665	1,950	600	630	424	665	852	406
25	662	603		620	435	1,640	624	489	395	850	693	293
26	852	605		460	483	1,730	501	288	248	690	822	510
27	900	780		410	-	1,620	543	322	419	651	752	315
28	808	730		510	-	1,650	668	262	358	856	763	416
29	651	880		380	-	1,260	585	310	474	576	749	561
30	630	950		230	-	1,170	393	280	469	904	794	525
31	920	-		410	-	996	-	160	-	766	728	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						17,574	920	146	567	34,860		
November.....						21,855	992	534	728	43,350		
December.....						21,080	-	-	680	41,810		
Calendar year 1938.....						236,559	1,850	-	648	469,200		
January.....						16,606	1,090	100	536	32,940		
February.....						15,400	-	-	550	30,550		
March.....						28,008	1,950	-	903	55,850		
April.....						25,710	1,340	393	790	47,030		
May.....						16,536	992	160	533	32,800		
June.....						11,292	495	189	376	22,400		
July.....						20,642	1,190	204	666	40,940		
August.....						20,627	876	403	665	40,910		
September.....						16,360	802	293	545	32,450		
Water year 1938-39.....						229,690	1,950	100	629	455,600		

Bear River near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°03', in NW¼ sec. 27, T. 13 N., R. 2 W., 800 feet downstream from Cutler plant of Utah Power & Light Co., 2,000 feet downstream from Cutler Dam, and 5½ miles north of Collinston. Prior to Oct. 1, 1938 water-stage recorder at site 1 mile downstream at different datum.

Drainage area.- 6,000 square miles.

Records available.- July 1889 to September 1939.

Average discharge.- 49 years (1889-1905, 1906-39), 1,777 second-feet.

Extremes.- Maximum discharge during year, 3,940 second-feet Mar. 22, 23 (gage height, 4.96 feet); minimum daily discharge, 18 second-feet July 25-29, Aug. 15-20.
1889-1939: Maximum discharge observed, 11,600 second-feet June 7-10, 1909 (gage height, 7.70 feet former site and datum); practically no flow at midnight Aug. 5, 1920.

Remarks.- Records good. Discharge for days of missing gage heights, Jan. 12, Mar. 24, 25, computed on basis of output of power plant. Many canals divert water above station. Flow regulated by storage in reservoirs and by operation of power plants above station. Several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	760	1,800	1,140	345	983	1,190	2,700	1,880	35	25	20	20
2	163	2,200	732	1,130	1,220	1,050	2,140	1,520	26	25	21	20
3	511	1,400	1,960	1,060	1,490	1,050	2,590	1,930	25	25	20	20
4	592	1,380	1,240	1,150	1,470	1,200	2,520	2,280	26	25	20	20
5	263	1,550	1,640	1,140	576	877	2,460	1,340	20	23	20	20
6	653	1,400	1,400	1,000	1,270	1,550	2,550	1,600	20	22	20	20
7	321	1,680	1,730	1,320	1,170	1,530	2,500	799	20	22	20	20
8	370	1,450	1,170	1,410	1,010	1,140	2,020	1,790	20	22	21	20
9	154	1,370	1,830	1,260	776	1,150	1,200	1,400	422	22	22	21
10	512	1,070	1,460	572	874	1,660	2,040	1,580	223	21	21	20
11	556	922	1,230	1,140	749	1,330	1,840	1,750	213	20	20	21
12	739	1,370	1,560	960	500	598	2,180	1,620	23	20	20	20
13	766	1,050	1,630	1,000	1,040	1,990	1,870	539	24	20	20	1,210
14	697	1,990	939	645	1,010	1,330	1,570	25	24	20	20	1,070
15	572	1,800	870	1,300	1,220	1,410	871	1,760	24	20	19	1,240
16	672	1,480	1,200	1,460	1,230	1,710	400	1,150	23	20	18	1,100
17	844	729	1,140	1,320	1,150	1,690	1,540	1,030	24	20	18	603
18	1,010	677	1,110	501	1,170	1,910	1,530	981	23	20	20	1,170
19	1,100	727	1,400	1,130	879	1,580	1,780	361	23	20	20	366
20	748	614	1,480	1,750	1,170	2,440	1,810	71	22	20	19	421
21	906	1,560	1,660	1,560	1,860	3,380	1,820	28	22	20	19	815
22	1,710	2,350	1,610	1,75	1,440	3,580	1,820	168	22	19	19	886
23	1,390	1,400	1,880	981	1,260	3,680	1,040	32	22	20	19	776
24	1,790	1,060	1,350	954	1,150	3,250	1,770	27	22	19	19	138
25	1,820	1,590	266	1,020	1,040	3,440	1,360	351	22	19	19	653
26	1,550	1,620	1,560	1,080	447	3,410	1,890	130	22	18	19	560
27	1,440	1,090	1,200	614	1,610	3,360	2,190	25	23	21	19	424
28	1,240	1,680	957	473	1,350	3,440	1,980	25	24	20	20	283
29	1,070	3,640	1,190	615	-	3,090	173	44	24	20	20	706
30	746	581	1,940	937	-	3,080	948	26	24	20	20	188
31	1,360	-	1,060	89	-	2,760	-	25	-	20	20	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October				27,027	1,820	163	872	53,610				
November				43,230	3,640	561	1,440	85,750				
December				41,424	1,960	732	1,340	82,160				
Calendar year 1938				430,918	4,800	16	1,180	654,700				
January				30,091	1,750	89	971	59,680				
February				31,114	1,860	447	1,110	61,710				
March				64,885	3,680	598	2,080	128,700				
April				53,152	2,700	173	1,770	105,400				
May				26,187	2,280	25	845	51,940				
June				1,485	422	20	49.5	2,950				
July				648	25	18	20.9	1,290				
August				612	22	18	19.7	1,210				
September				12,850	1,240	20	428	25,490				
Water year 1938-39				332,665	3,680	18	911	659,900				

Cottonwood Creek near Cleveland, Idaho

Location.- Staff gage, lat. 42°20', long. 111°46', in sec. 34, T. 12 S., R. 40 E., 500 feet upstream from Cleveland Irrigation canal, 2½ miles west of Cleveland, and 4 miles downstream from proposed Cottonwood Dam.

Records available.- November 1938 to September 1939.

Extremes.- Maximum discharge observed during period of record, 330 second-feet Apr. 1 (gage height, 3.00 feet) from rating curve extended above 120 second-feet; minimum observed, 1 second-foot July 26, Aug. 16 to Sept. 5, Sept. 9-11; minimum gage height observed, 0.44 foot Aug. 31.

Remarks.- Records fair except those for periods of ice effect, Nov. 22-25, Dec. 11-31, Jan. 7-9, 12, 13, 20, Jan. 22 to Feb. 28, and those of doubtful gage height, May 23, which are estimated and are poor. Discharge interpolated Aug. 2, 6. Several diversions for irrigation in upper valley above proposed Cottonwood dam. Gage read once daily.

Rating table, Nov. 21 to Sept. 30 (gage height, in feet, discharge, in second-feet)

0.4	0.45	1.3	28	2.5	208
.6	1.5	1.6	54	2.8	280
.8	5.0	1.9	95	3.0	330
1.0	11.5	2.2	145		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	11	12		11	330	71	7	6	3	1
2		-	12	11		10	243	68	7	6	3	1
3		-	12	11		11	280	68	9	6	3	1
4		-	12	11		11	280	66	9	6	2	1
5		-	13	11		10	268	65	9	6	2	1
6		-	12	11		10	255	63	9	6	2	2
7		-	12	10		10	186	52	12	7	2	2
8		-	15	9		10	109	41	10	6	2	2
9		-	16	10		10	109	39	12	6	2	1
10		-	14	11		10	109	36	12	6	2	1
11		-		9		10	126	34	9	4	2	1
12		-		10		11	103	32	9	4	2	2
13		-		10		12	93	31	8	4	2	3
14		-		11		12	99	34	8	3	2	4
15		-		10		12	96	28	9	3	2	3
16		-		11		14	96	23	9	3	1	2
17		-		10		14	93	28	16	3	1	2
18		-		11		15	93	22	14	3	1	2
19		-		10		16	90	22	13	3	1	2
20		-		10		22	96	22	12	3	1	2
21		6	11	10		72	95	20	11	3	1	2
22						165	93	16	9	2	1	2
23						208	93	19	8	2	1	3
24		7				208	186	17	8	2	1	3
25						186	84	18	9	2	1	3
26		8		10		165	81	14	7	1	1	3
27		7				118	78	13	7	3	1	3
28		8				109	73	12	6	3	1	3
29		8				126	73	16	6	4	1	6
30		9				126	73	12	8	3	1	5
31		-				220	-	9	-	3	1	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				-	-	-	-	-				
November 21-30.....				74	9	-	7.4	147				
December.....				360	16	-	11.6	714				
Calendar year												
January.....				319	12	-	10.3	633				
February.....				252	-	-	9.0	500				
March.....				1,944	220	10	62.7	3,860				
April.....				4,081	350	73	136	8,090				
May.....				1,009	71	9	32.5	2,000				
June.....				281	16	6	9.4	557				
July.....				128	9	1	4.1	254				
August.....				49	3	1	1.6	37				
September.....				69	6	1	2.3	137				
The period.....				-	-	-	-	16,990				

Little Bear River near Paradise, Utah

Location.- Water-stage recorder, lat. 41°35'25", long. 111°51'10", in SE¼ sec. 20, T. 10 N., R. 1 E., 1 mile upstream from backwater of Hyrum Reservoir, 2 miles northwest of Paradise, and 5 miles downstream from East Fork.

Drainage area.- 203 square miles.

Records available.- October 1938 to September 1939, in reports of Geological Survey. January 1938 to October 1939 (fragmentary), in reports of Little Bear River water commissioner.

Extremes.- Maximum discharge during year, 491 second-feet Apr. 4 (gage height, 3.17 feet); minimum discharge, 7 second-feet Aug. 23, 24, 28.

Remarks.- Records good except those for periods of ice effect, Jan. 8-11, 22-28, Feb. 1-24, which were computed on basis of records for Spanish Fork at Castilla and temperature records and are fair. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	60	47	45	44	42	267	232	30	17	12	10
2	20	53	47	45	39	42	289	206	31	18	12	10
3	21	50	51	46	41	42	381	183	29	16	12	10
4	21	55	50	46	42	42	372	154	26	14	12	10
5	22	55	50	46	44	41	326	184	27	15	12	10
6	22	49	49	46	44	41	254	165	27	14	12	9
7	23	47	49	43	44	42	228	149	27	13	13	10
8	24	46	50	38	43	42	239	130	29	14	12	10
9	23	47	50	39	41	42	258	118	29	14	13	10
10	23	47	49	40	40	44	214	112	24	14	13	10
11	22	47	47	41	41	47	195	122	23	14	12	10
12	24	46	43	42	41	50	195	136	22	12	12	15
13	22	50	41	39	43	55	221	100	22	10	11	15
14	22	50	42	42	44	57	217	84	23	12	11	14
15	22	49	44	44	44	56	210	76	24	11	11	14
16	32	49	46	45	43	57	199	76	26	12	10	14
17	42	51	46	44	40	66	182	69	31	12	10	13
18	46	49	46	45	39	84	132	56	28	12	10	15
19	45	49	46	45	41	103	186	52	28	12	11	15
20	46	49	47	45	41	132	188	47	28	10	13	15
21	46	46	47	45	41	163	197	38	26	12	12	17
22	46	43	47	41	41	211	206	35	23	12	10	14
23	46	42	47	39	40	271	219	31	22	14	9	15
24	46	44	46	40	41	319	298	35	21	14	8	16
25	45	45	46	40	43	347	276	34	21	13	10	16
26	46	44	44	40	43	342	230	31	20	12	10	15
27	45	45	43	42	43	326	208	32	19	12	13	15
28	45	45	47	44	43	239	188	29	19	12	10	15
29	45	46	46	46	-	221	195	26	20	12	10	15
30	46	47	46	47	-	221	214	24	17	12	10	15
31	53	-	45	47	-	247	-	29	-	14	10	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	1,051	65	20	53.9	2,080							
November.....	1,445	60	42	48.2	2,870							
December.....	1,444	51	41	46.6	2,860							
Calendar year	-	-	-	-	-							
January.....	1,357	47	38	43.1	2,650							
February.....	1,174	44	39	41.9	2,330							
March.....	4,034	347	41	130	8,000							
April.....	7,054	381	182	235	13,990							
May.....	2,836	232	24	91.5	5,630							
June.....	738	31	17	24.6	1,460							
July.....	404	18	10	13.0	801							
August.....	346	13	8	11.2	686							
September.....	391	17	9	13.0	776							
Water year 1938-39.....	22,254	381	8	61.0	44,130							

Hyrum Reservoir near Hyrum, Utah

Location.- Mercury indicating gage, lat. 41°37'30", long. 111°52'30", in SE¼ sec. 7, T. 10 N., R. 1 E., at Hyrum Dam, 1 mile southwest of Hyrum. Datum of gage is at mean sea level.

Drainage area.- 220 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum contents during year, 18,680 acre-feet Apr. 30 to May 20 (elevation, 4,672.0 feet); minimum, 5,650 acre-feet Sept. 30 (elevation, 4,639.0 feet).

Remarks.- Reservoir is formed by earth-fill dam; storage began in 1935. Capacity, 18,680 acre-feet between elevations 4,590 feet (bottom of reservoir) and 4,672 feet (top of spillway gates) above mean sea level. Dead storage, 3,370 acre-feet (below elevation 4,629.6 feet, sill of outlet canal). Figures given herein represent total contents. Elevation of spillway crest is 4,660 feet. Water is used for irrigation on the Hyrum project.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Furnished by Little Bear River water commissioner; computed from project map)

4,629	3,250	4,638	5,380	4,648	8,520	4,658	12,360	4,668	16,780
4,650	3,460	4,640	5,940	4,650	9,240	4,660	13,210	4,670	17,720
4,652	3,890	4,642	6,530	4,652	9,980	4,662	14,070	4,672	18,680
4,654	4,350	4,644	7,150	4,654	10,750	4,664	14,950		
4,656	4,850	4,646	7,830	4,656	11,550	4,666	15,850		

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,390	-	-	12,490	-	-	14,240	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	10,060	12,820	-	-	-	-	-	15,400	10,870	7,100
4	-	-	-	-	-	-	-	-	-	15,270	-	-
5	7,100	8,100	-	-	-	-	14,550	-	-	-	10,710	-
6	-	-	-	-	-	-	-	18,680	17,770	-	-	6,750
7	-	-	10,440	-	-	-	-	-	-	14,820	-	-
8	7,000	8,270	-	-	-	-	14,950	-	-	-	10,360	-
9	-	-	-	-	-	-	-	-	-	14,420	-	6,470
10	-	-	-	-	-	-	-	-	-	14,290	10,100	-
11	-	-	-	13,210	-	-	-	-	-	-	-	-
12	-	8,520	-	-	13,720	-	-	-	17,580	13,940	9,720	6,290
13	-	-	-	-	-	-	15,400	-	-	-	-	-
14	6,970	-	-	13,590	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	15,810	-	-	-	9,240	6,200
17	-	-	11,230	-	-	-	-	18,680	17,250	13,210	-	-
18	7,000	8,950	-	-	-	-	-	-	-	-	8,950	-
19	-	-	11,470	-	-	13,850	16,820	-	-	-	-	6,170
20	-	-	-	-	-	-	-	18,680	-	-	-	-
21	-	-	-	13,680	-	-	-	-	17,150	-	8,480	-
22	7,160	-	-	-	-	14,070	17,820	18,540	-	12,360	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	16,820	12,080	8,170	-
25	-	9,460	-	-	13,720	-	-	-	-	-	-	5,940
26	-	-	-	-	-	-	18,490	-	-	11,830	-	-
27	-	-	-	-	-	-	-	18,200	16,590	-	7,850	-
28	7,460	-	-	-	13,770	-	-	-	-	11,500	-	-
29	-	9,760	-	13,680	-	-	-	-	16,180	-	7,660	-
30	7,560	9,830	-	-	-	-	18,680	-	15,950	-	-	5,650
31	7,660	-	12,490	13,680	-	14,240	-	18,010	-	11,150	7,430	-

Monthly elevation and contents, water year October 1938 to September 1939

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	-	*7,460	-
Oct. 31.....	4,645.5	7,560	+200
Nov. 30.....	4,653.6	9,350	+2,170
Dec. 31.....	4,658.3	12,490	+2,650
Jan. 31.....	4,661.1	13,680	+1,190
Feb. 28.....	4,661.3	13,770	+90
Mar. 31.....	4,662.4	14,240	+470
Apr. 30.....	4,672.0	18,680	+4,440
May 31.....	4,670.6	18,010	-670
June 30.....	4,666.2	15,950	-2,060
July 31.....	4,656.0	11,150	-4,800
Aug. 31.....	4,644.8	7,430	-3,720
Sept. 30.....	4,639.0	5,650	-1,780
Water year 1938-39..	-	-	-1,810

*Interpolated.

Little Bear River near Hyrum, Utah

Location.- Water-stage recorder, lat. 41°38'00", long. 111°53'15", in N⁴⁵W⁴ sec. 6, T. 10 N., R. 1 E., 800 feet upstream from bridge, 1½ miles downstream from Hyrum Dam, and 2 miles west of Hyrum.

Drainage area.- 222 square miles.

Records available.- October 1938 to September 1939.

Extremes.- Maximum discharge during year, 421 second-feet Mar. 25 (gage height, 3.38 feet); minimum daily discharge, 1 second-foot for several days in July, August, and September.

Remarks.- Records good. Flow affected by many diversions upstream for irrigation and regulated by storage in Hyrum Reservoir (capacity, 18,680 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2	10	7	7	56	53	255	228	3	1	1	1
2	10	7	7	7	54	53	270	247	4	1	1	1
3	3	10	8	7	53	53	298	230	4	1	1	1
4	3	10	8	7	53	54	347	162	2	1	1	1
5	3	10	8	7	53	55	354	135	2	1	1	1
6	3	10	8	7	53	55	224	147	4	2	1	1
7	6	10	8	7	54	54	109	146	3	3	1	1
8	8	10	8	7	55	53	78	93	3	2	1	1
9	7	10	8	7	55	53	159	63	4	1	1	1
10	6	10	7	7	54	54	234	63	4	1	1	1
11	6	10	7	13	54	54	224	66	3	2	1	1
12	7	9	7	22	54	56	220	77	3	1	1	1
13	7	7	7	27	54	56	218	75	2	1	1	2
14	7	7	7	33	54	59	218	45	2	1	1	4
15	7	7	7	38	54	61	131	24	2	1	1	4
16	8	7	7	41	54	63	12	20	3	2	1	3
17	10	7	7	44	52	57	10	14	3	1	1	3
18	10	8	7	45	50	79	10	12	2	1	1	3
19	10	7	7	47	51	94	10	12	2	2	1	4
20	10	7	7	48	51	111	10	10	3	2	1	4
21	10	7	7	49	51	130	9	10	4	2	1	4
22	10	7	7	49	51	146	8	11	3	2	1	4
23	10	7	7	48	51	168	8	7	3	1	1	4
24	10	7	7	47	51	268	225	6	4	2	1	5
25	10	7	7	47	52	352	312	6	3	2	1	6
26	10	7	7	46	54	398	267	5	3	1	1	6
27	10	7	7	47	53	378	211	4	3	1	1	6
28	10	7	7	51	53	333	168	4	2	1	1	6
29	10	7	7	52	-	283	112	3	2	1	1	6
30	10	-	7	53	-	255	104	3	2	1	1	6
31	10	-	7	58	-	244	-	4	-	1	1	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	235	10	2	7.6	466							
November.....	246	10	7	8.2	488							
December.....	224	8	7	7.2	444							
Calendar year	-	-	-	-	-							
January.....	975	58	7	31.5	1,930							
February.....	1,484	56	50	53.0	2,940							
March.....	4,121	393	53	135	8,310							
April.....	4,835	354	8	161	9,590							
May.....	1,932	247	3	62.3	3,830							
June.....	87	4	2	2.9	173							
July.....	43	3	1	1.4	85							
August.....	31	1	1	1.0	61							
September.....	92	6	1	3.1	182							
Water year 1938-39.....	14,575	398	1	39.4	28,500							

Logan River above State Dam, near Logan, Utah

Location.- Water-stage recorder and concrete control, lat. 41°44'40", long. 111°47'00", in NE¼ sec. 36, T. 12 N., R. 1 E., at Logan plant of Utah Power & Light Co., 125 feet upstream from tailrace, half a mile upstream from State Dam, and 2½ miles east of Logan.

Drainage area.- 218 square miles.

Records available.- May 1913 to September 1939. June 1896 to December 1912, at site a quarter of a mile downstream; flow at present site plus that of tailrace equivalent to flow at former site.

Average discharge.- 26 years (1913-39), 119 second-feet.

Extremes.- Maximum discharge during year, 371 second-feet May 5 (gauge height, 2.64 feet); minimum daily discharge, 10 second-feet Nov. 2-5, Sept. 24.
1913-39: Maximum discharge, 2,000 second-feet (estimated) Mar. 21, 1916 (gauge height, 5.6 feet, former datum); minimum daily discharge, 8 second-feet several days in 1931 and in period 1934-38.

Remarks.- Records good except those for periods Nov. 2 to Dec. 5, Apr. 27-29 (discharge based on mean of twice-daily gauge readings), which are fair. Water diverted from river and springs above station for power, irrigation, and municipal supply. Flow regulated by operation of power plants above station. Water-stage-recorder graph and results of several discharge measurements furnished by Utah Power & Light Co.

Rating table, water year 1938-39 (gauge height, in feet, and discharge, in second-feet) (Shifting-control method used Oct. 1 to Nov. 30)

0.8	5	1.1	30	1.6	114	2.2	254
.9	11	1.2	43	1.8	167	2.4	306
1.0	19	1.4	75	2.0	204	2.6	360

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12	11	19	13	12	43	264	153	28	13	17
2	14	10	13	19	12	11	33	249	129	18	13	18
3	13	10	13	19	13	11	72	259	108	16	13	19
4	14	10	13	17	13	11	65	296	106	17	13	18
5	13	10	13	17	13	11	84	320	106	17	13	19
6	15	12	11	17	13	11	75	298	94	17	13	17
7	15	12	11	16	13	11	58	249	81	14	12	18
8	14	12	12	11	12	13	68	216	75	17	12	19
9	13	12	11	12	11	13	72	212	88	17	12	17
10	13	12	11	13	13	12	94	224	84	14	13	15
11	13	12	11	16	13	13	81	264	79	15	13	15
12	13	12	12	16	13	13	75	259	73	15	17	33
13	13	12	12	13	13	13	100	209	73	15	16	17
14	13	12	13	11	13	13	124	187	73	16	16	14
15	14	12	21	13	13	13	100	199	70	15	13	13
16	15	12	28	13	13	13	75	239	72	17	12	13
17	14	12	28	12	13	13	94	301	72	14	12	12
18	13	12	28	13	13	16	84	242	61	14	12	11
19	13	12	27	13	13	18	100	206	60	14	12	11
20	13	12	27	14	13	22	102	185	56	14	12	11
21	13	12	24	15	13	29	133	144	54	14	12	11
22	16	12	24	13	13	38	168	131	50	13	12	11
23	15	12	17	13	12	31	192	122	52	13	12	11
24	14	12	13	11	12	29	222	116	48	13	13	10
25	13	12	20	11	12	38	197	106	43	12	12	11
26	13	12	19	11	11	30	131	94	46	12	12	11
27	13	12	17	13	12	26	98	90	39	13	11	11
28	13	12	22	12	12	19	131	98	35	13	11	12
29	13	12	21	13	-	18	185	116	33	13	11	11
30	14	12	22	13	-	19	256	110	43	13	11	11
31	13	-	22	14	-	26	-	160	-	13	12	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	422	16	13	13.6	837
November.....	352	12	10	11.7	698
December.....	552	28	11	17.8	1,090
Calendar year 1938.....	39,487	815	8	108	78,310
January.....	433	19	11	14.0	859
February.....	353	13	11	12.6	700
March.....	566	38	11	18.3	1,120
April.....	3,292	236	33	110	6,530
May.....	6,155	320	90	199	12,210
June.....	2,166	153	33	71.9	4,280
July.....	466	28	12	16.0	924
August.....	391	17	11	12.6	776
September.....	437	33	10	14.6	887
Water year 1938-39.....	15,575	320	10	42.7	30,890

Utah Power & Light Co.'s tailrace near Logan, Utah

Location.- Water-stage recorder and wooden control, lat. 41°44'40", long. 111°47'00", in NE¼ sec. 36, T. 12 N., R. 1 E., 100 feet downstream from powerhouse of Utah Power & Light Co. and 2½ miles east of Logan.

Records available.- May 1913 to September 1939.

Average discharge.- 26-years, 103 second-feet.

Remarks.- Records good. Flow regulated by operation of power plant above gage. Power canal diverts water from right bank of Logan River, in SE¼SW¼ sec. 29, T. 12 N., R. 2 E. Water returned to river 125 feet below gaging station on Logan River, above State dam. Water-stage-recorder graph and results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	132	105	89	87	85	172	171	168	165	129	89
2	110	129	103	89	82	85	171	171	168	165	124	86
3	110	125	105	89	79	84	172	171	166	165	118	87
4	110	123	105	88	87	85	172	171	165	166	119	87
5	107	129	110	88	87	84	172	171	165	170	120	86
6	112	119	110	88	87	80	141	171	165	162	120	87
7	112	115	107	88	87	80	148	171	164	155	120	87
8	112	112	107	88	86	83	147	171	162	152	120	87
9	124	114	107	88	80	84	170	171	161	151	118	87
10	129	115	105	88	83	84	129	171	161	150	116	87
11	127	116	105	88	86	85	129	171	162	145	115	87
12	123	110	101	85	87	83	130	171	161	145	115	70
13	123	115	91	88	87	84	128	172	161	143	110	89
14	121	112	88	87	87	85	125	171	159	138	109	89
15	119	107	88	87	86	84	155	171	159	138	109	89
16	128	112	89	87	85	83	172	171	159	140	109	89
17	128	114	91	87	85	84	140	171	157	141	107	87
18	125	112	92	87	82	86	141	171	157	139	106	86
19	124	115	92	87	85	86	152	171	157	156	106	84
20	125	114	92	88	84	89	174	171	158	156	105	84
21	121	112	92	88	80	92	172	170	158	133	105	84
22	123	104	87	88	83	92	172	171	161	133	103	85
23	123	101	87	87	83	118	172	170	162	153	103	84
24	123	105	88	84	85	140	172	168	161	153	103	83
25	120	111	88	79	84	155	171	168	162	129	103	85
26	118	112	88	85	87	165	171	168	162	127	104	85
27	116	106	87	87	79	170	155	166	161	127	99	85
28	116	105	88	87	77	151	171	168	161	127	99	82
29	114	110	88	87	-	161	171	168	161	124	98	77
30	114	106	88	87	-	164	171	170	159	153	98	78
31	125	-	88	87	-	171	-	170	-	154	98	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	3,692	129	107	119	7,320							
November.....	3,417	132	101	114	6,780							
December.....	2,962	110	87	95.5	5,880							
Calendar year 1938	45,820	174	1	126	90,880							
January.....	2,701	89	79	87.1	5,360							
February.....	2,357	87	77	84.2	4,680							
March.....	3,242	171	80	105	6,430							
April.....	4,738	174	125	158	9,400							
May.....	5,278	172	166	170	10,470							
June.....	4,845	168	157	161	9,610							
July.....	4,435	170	124	143	8,790							
August.....	3,408	129	98	110	6,780							
September.....	2,652	89	70	86.1	5,060							
Water year 1938-39.....	45,623	174	70	120	86,540							

Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah

Location.- Water-stage recorder, lat. 41°37'20", long. 111°44'25", in NE $\frac{1}{4}$ sec. 8, T. 10 N., R. 2 E., three-quarters of a mile upstream from diversion dam, $3\frac{1}{2}$ miles above power plant of Utah Power & Light Co., and 6 miles east of Hyrum.

Drainage area.- 260 square miles.

Records available.- July 1900 to December 1902, November 1913 to September 1939.

Average discharge.- 25 years (1914-39), 127 second-feet.

Extremes.- Maximum discharge during year, 208 second-feet Mar. 22 (gage height, 2.31 feet); minimum daily discharge, 56 second-feet Sept. 24, 29.
1913-39: Maximum discharge, about 1,620 second-feet May 15, 1917 (gage height, 6.5 feet, former site and datum); minimum daily discharge, 29 second-feet Jan. 3, 1935.

Remarks.- Records excellent except those for periods of missing gage heights, Nov. 6-9, 9-21, 24-30, Dec. 1-5, which were interpolated and are good. No large diversions above station. Low-water flow may be affected by operation of power plant upstream. Water-stage-recorder graph and results of several discharge measurements furnished by Utah Power & Light Co.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Jan. 7 to Mar. 10)

1.2	51	2.0	154
1.4	70	2.2	188
1.6	95	2.4	225
1.8	123		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	94	80	77	67	62	146	166	102	80	69	61
2	87	92	80	77	62	62	146	162	98	80	69	61
3	87	89	81	77	65	62	164	169	95	78	68	60
4	87	95	81	77	66	62	168	156	92	78	67	60
5	86	94	82	76	66	62	162	162	95	77	67	61
6	87	95	82	77	66	62	143	148	95	78	66	62
7	88	92	82	75	67	62	136	138	92	76	65	61
8	88	91	83	74	66	64	149	132	91	76	64	62
9	87	90	83	72	67	66	168	126	91	74	65	63
10	87	90	83	71	66	66	145	126	88	72	64	63
11	86	90	82	70	66	69	135	128	85	71	64	63
12	85	89	82	67	66	70	140	129	85	68	65	66
13	85	88	80	67	66	74	159	126	82	71	65	67
14	86	87	76	67	66	76	159	117	82	69	62	66
15	86	86	77	67	66	75	167	120	80	69	61	64
16	90	85	78	67	66	76	151	115	86	69	61	67
17	90	84	78	67	66	81	144	113	91	69	60	64
18	87	83	78	67	66	98	141	113	91	69	60	62
19	87	82	78	67	66	115	144	113	91	68	61	60
20	86	81	80	67	65	128	144	110	91	67	62	61
21	86	80	78	67	65	135	148	109	88	68	63	57
22	87	80	78	67	63	144	162	106	87	68	63	62
23	87	76	80	67	62	162	156	106	85	67	63	57
24	87	76	80	67	62	167	171	108	85	67	63	56
25	87	77	80	66	62	164	171	106	83	67	63	61
26	86	77	80	66	62	161	157	103	82	67	63	61
27	86	78	78	66	62	159	146	102	81	68	63	62
28	85	78	78	67	62	134	146	101	80	68	64	57
29	85	79	78	66	-	128	154	101	81	68	64	56
30	86	79	77	66	-	130	162	98	81	68	64	59
31	90	-	77	67	-	138	-	105	-	68	62	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	2,691		90	85	86.8	5,340						
November.....	2,554		95	76	85.1	5,070						
December.....	2,470		83	76	79.7	4,900						
Calendar year 1938.....	44,909		610	67	123	89,090						
January.....	2,156		77	66	69.6	4,280						
February.....	1,617		67	62	64.9	3,600						
March.....	3,096		164	82	99.9	6,140						
April.....	4,584		171	135	152	9,050						
May.....	3,796		166	98	122	7,530						
June.....	2,636		102	80	77.9	5,230						
July.....	2,203		80	67	71.1	4,370						
August.....	1,974		69	60	63.7	3,920						
September.....	1,841		67	56	61.4	3,650						
Water year 1938-39.....	31,800		171	56	87.1	63,080						

Logan, Hyde Park & Smithfield canal near Logan, Utah

Location.- Water-stage recorder and concrete rating flume, lat. 41°44'45", long. 111°47'05", in SE¼ sec. 25, T. 12 N., R. 1 E., ¼ miles downstream from head of canal and 2½ miles east of Logan.

Records available.- June 1904 to December 1907, January 1909 to September 1939.

Average discharge.- 16 years (1923-39), 30.1 second-feet.

Extremes.- Maximum daily discharge during year, 119 second-feet May 10; no flow Mar. 22 to Apr. 16, Apr. 25.
1906, 1924-39: Maximum daily discharge, 136 second-feet May 30, 31, 1930; no flow during periods of practically every year.

Remarks.- Records good except those for periods when recorder was not operating, Oct. 6-27, Nov. 17 to Apr. 23, which were based on miscellaneous gage readings, observer's notes of gate changes at the head of canal and two discharge measurements and are fair. No diversion above gage. Flow regulated by head gates at diversion works. Canal diverts water from Logan River in NE¼ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic supply in territory north of Logan. Results of several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	9	7	7	7	7	0	50	106	44	54	25
2	27	9	7	7	7	7	0	54	106	44	52	25
3	27	8	7	7	7	7	0	95	106	44	52	25
4	27	9	7	7	7	7	0	99	108	44	51	25
5	27	9	7	7	7	7	0	101	108	44	50	25
6	28	8	7	7	7	7	0	109	112	44	49	25
7	29	8	7	7	7	7	0	117	108	44	49	25
8	30	8	7	7	7	7	0	115	90	44	49	25
9	30	8	7	7	7	7	0	112	88	44	49	25
10	7	8	7	7	7	7	0	119	82	44	49	25
11	7	8	7	7	7	7	0	115	79	44	49	25
12	7	8	7	7	7	7	0	89	79	44	48	25
13	7	8	7	7	7	7	0	86	74	34	23	25
14	7	8	7	7	7	7	0	85	71	34	23	25
15	7	7	7	7	7	7	0	83	70	34	23	25
16	7	7	7	7	7	7	0	83	71	34	23	25
17	7	7	7	7	7	7	8	84	71	34	27	25
18	7	7	7	7	7	7	15	85	70	34	27	25
19	7	7	7	7	7	7	20	84	64	34	27	25
20	7	7	7	7	7	7	25	85	62	34	26	25
21	7	7	7	7	7	6	30	99	58	34	26	25
22	7	7	7	7	7	0	40	113	54	34	26	25
23	7	7	7	7	7	0	43	115	50	34	26	25
24	7	7	7	7	7	6	17	104	49	34	26	25
25	7	7	7	7	7	0	0	93	48	34	26	25
26	7	7	7	7	7	0	27	96	48	34	25	25
27	7	7	7	7	7	0	54	96	48	34	24	25
28	16	7	7	7	7	0	63	97	46	34	25	25
29	16	7	7	7	7	0	76	88	44	34	25	25
30	16	7	7	7	7	0	60	113	44	34	25	25
31	14	-	7	7	7	-	-	112	-	-	25	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	441	30	7	14.2	975							
November.....	228	9	7	7.6	452							
December.....	217	7	7	7.0	450							
Calendar year 1938.....	11,091	125	1	50.4	22,000							
January.....	217	7	7	7.0	450							
February.....	198	7	7	7.0	389							
March.....	146	7	0	4.7	290							
April.....	483	76	0	16.1	988							
May.....	3,018	119	50	97.4	3,700							
June.....	2,208	112	44	73.6	4,389							
July.....	1,148	43	32	37.0	2,229							
August.....	821	34	24	27.3	1,723							
September.....	770	27	25	25.7	1,530							
Water year 1938-39.....	9,933	119	0	27.2	19,710							

Hammond (East Side) canal near Collinston, Utah

Location.- Water-stage recorder, lat. 41°50', long. 112°03', in SE $\frac{1}{4}$ sec. 27, T. 13 N., R. 2 W., 3,600 feet downstream from Cutler Dam and 4 miles north of Collinston.

Records available.- June 1912 to September 1939.

Average discharge.- 22 years (1917-39), 51.3 second-feet.

Extremes.- Maximum daily discharge during year, 150 second-feet July 7; no flow Nov. 30 to Apr. 29.

1912-39: Maximum daily discharge, 182 second-feet June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

Remarks.- Records excellent except those below 20 second-feet, which are fair. Discharge for periods of missing gage heights, Nov. 12-29, Sept. 13-16, estimated by power-plant operators. Canal diverts water from east side of Bear River in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 13 N., R. 2 W., at dam at which West Side canal and intake of Cutler power plant also divert water. Water used for irrigation in eastern Box Elder County. Water-stage-recorder graph and several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	12					0	60	97	149	126	151
2	98	12					0	52	95	149	136	151
3	101	12					0	70	96	150	137	125
4	105	12					0	100	97	148	137	122
5	99	10					0	111	96	149	137	122
6	92	9					0	122	96	149	137	118
7	94	8					0	134	96	150	139	88
8	86	8					0	128	96	149	137	67
9	70	8					0	128	96	148	154	62
10	56	7					0	128	96	148	136	62
11	45	7					0	122	96	148	139	72
12	40	7					0	131	96	148	142	40
13	42	6					0	133	105	148	142	6
14	44	6					0	135	126	148	142	6
15	45	6					0	133	139	148	142	6
16	45	6					0	132	139	149	145	6
17	29	6					0	132	117	148	142	14
18	22	6					0	139	114	148	142	38
19	22	6					0	143	140	148	142	52
20	20	6					0	144	139	148	142	44
21	16	6					0	145	140	148	141	44
22	11	6					0	145	139	148	143	58
23	10	6					0	140	139	147	142	70
24	10	6					0	126	139	148	141	70
25	11	6					0	124	139	144	141	71
26	11	6					0	130	139	138	135	70
27	12	6					0	144	140	133	129	74
28	12	6					0	144	145	138	130	79
29	12	3					0	145	149	133	134	79
30	12	0					41	142	148	129	133	80
31	12	-					-	106	-	114	132	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				1,384	105	10	44.6	2,760				
November.....				211	12	0	7.0	419				
December.....				0	0	0	0	0				
Calendar year 1938.....				18,490	148	0	50.7	36,680				
January.....				0	0	0	0	0				
February.....				0	0	0	0	0				
March.....				0	0	0	0	0				
April.....				41	41	0	1.4	81				
May.....				3,878	145	60	125	7,690				
June.....				3,589	149	95	120	7,120				
July.....				4,490	160	114	145	8,910				
August.....				4,274	143	125	138	8,490				
September.....				2,007	131	6	66.9	3,980				
Water year 1938-39.....				19,874	160	0	54.4	39,430				

West Side canal near Collinston, Utah

Location.— Water-stage recorder, lat. 49°50', long. 112°04', in SW¼ sec. 27, T. 13 N., R. 2 W., 4,200 feet downstream from Cutler Dam and 4 miles north of Collinston.

Records available.— June 1912 to September 1939.

Average discharge.— 27 years, 224 second-feet.

Extremes.— Maximum daily discharge during year, 664 second-feet May 23; no flow Mar. 23 to Apr. 29.

1912-39: Maximum daily discharge, 690 second-feet July 20, 21, 1938; no flow during periods of each year except 1914.

Remarks.— Records excellent except those for period when recorder was not operating, Dec. 11 to May 1 (computed on basis of daily gage readings) and those for period of ice effect, Dec. 22-30, (interpolated), both of which are good. Canal diverts water from west side of Bear River in NW¼ sec. 26, T. 13 N., R. 2 W., at dam at which Hammond (East Side) canal and intake of Cutler power plant also divert water. Water used for irrigation in eastern Box Elder County. Water-stage-recorder graph and several discharge measurements furnished by Utah Power & Light Co.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	435	90	46	30	22	21	0	76	446	656	464	562
2	425	87	45	30	22	21	0	141	446	652	464	560
3	424	83	40	30	22	21	0	182	446	652	465	545
4	417	83	37	30	22	21	0	223	442	652	464	533
5	401	69	35	30	22	21	0	263	442	654	466	531
6	393	60	34	30	22	21	0	360	442	652	482	530
7	383	60	34	30	22	21	0	440	439	656	516	452
8	352	60	35	30	22	22	0	449	440	656	560	404
9	295	59	35	30	22	21	0	531	442	656	588	393
10	262	60	35	30	22	21	0	616	444	654	598	386
11	264	59	34	29	21	21	0	606	444	656	612	370
12	264	59	34	29	21	21	0	554	470	658	622	266
13	255	59	34	29	21	21	0	571	543	658	630	176
14	252	59	33	28	21	21	0	577	573	660	626	138
15	253	59	33	28	21	21	0	543	575	662	628	143
16	248	60	32	28	21	21	0	468	588	660	628	155
17	155	59	32	28	21	21	0	596	520	652	628	145
18	90	55	31	27	21	21	0	622	442	630	628	156
19	90	43	31	27	21	21	0	646	461	630	642	163
20	90	46	31	27	21	21	0	656	533	630	656	163
21	90	52	30	26	21	21	0	658	554	618	638	182
22	90	52	30	25	21	10	0	656	573	616	630	209
23	90	52	30	24	21	0	0	664	608	592	630	218
24	91	52	30	24	21	0	0	634	608	590	624	220
25	91	52	30	24	21	0	0	606	608	573	626	225
26	88	52	30	22	21	0	0	610	630	547	628	242
27	87	52	30	22	21	0	0	612	640	554	626	308
28	87	52	30	22	21	0	0	610	648	556	628	331
29	87	52	30	22	-	0	0	608	656	547	614	332
30	87	52	30	22	-	0	12	610	654	520	592	336
31	90	-	30	22	-	0	-	528	-	491	565	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	6,726		435	97	217	13,340						
November.....	1,759		90	43	59.6	3,560						
December.....	1,031		46	30	33.3	2,040						
Calendar year 1938.....	86,620		690	0	237	171,800						
January.....	835		30	22	26.9	1,660						
February.....	598		22	21	21.4	1,190						
March.....	452		22	0	14.6	897						
April.....	12		12	0	.4	24						
May.....	15,926		664	76	114	31,560						
June.....	15,757		656	439	625	31,260						
July.....	19,242		662	491	621	38,170						
August.....	18,154		656	463	607	36,070						
September.....	9,364		562	138	312	18,570						
Water year 1938-39.....	89,916		664	0	246	178,400						

Malad River at Woodruff, Idaho

Location.- Staff gage, lat. 42°02', long. 112°14', in sec. 15, T. 16 S., R. 36 E., at bridge on county road at Woodruff, 2½ miles north of Idaho-Utah State line.

Records available.- November 1938 to September 1939.

Extremes.- Maximum discharge observed during period of record, 360 second-feet Mar. 20, 21 (gage height, 6.70 feet); minimum observed, 17 second-feet July 17; minimum gage height observed, 1.98 feet May 20.

Remarks.- Records fair. Gage read once daily. Flow regulated by storage in various small reservoirs in drainage basin upstream. Many diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			56	74	65	68	153	53	22	20	18	19
2			59	77	62	71	146	66	21	20	30	19
3			68	77	68	71	139	59	23	20	23	20
4			77	77	71	68	118	53	22	20	22	19
5			66	77	65	56	104	48	21	20	22	19
6			104	77	71	77	86	44	22	20	24	18
7			104	71	56	74	53	42	21	19	24	20
8			111	46	71	77	83	41	21	19	22	20
9			111	62	50	83	97	40	22	19	21	20
10			123	62	62	90	68	39	20	19	21	20
11			104	65	65	104	65	43	20	19	19	20
12			83	66	69	97	65	39	21	19	20	21
13			68	65	71	132	65	33	20	18	20	20
14			65	66	68	139	63	41	23	18	20	20
15			59	68	71	160	71	24	21	18	20	20
16			59	68	65	175	83	26	22	18	20	20
17			59	65	65	191	71	25	20	17	20	20
18			65	68	71	207	68	24	24	18	20	20
19		65	68	71	71	267	71	20	20	18	19	21
20		68	71	71	68	360	62	19	20	18	19	21
21		65	74	71	68	360	59	25	19	18	18	21
22		65	74	65	65	350	48	25	20	18	19	21
23		35	77	48	63	341	53	24	22	18	19	21
24		58	71	59	65	305	53	24	21	18	20	21
25		53	74	56	71	267	83	24	21	18	20	21
26		50	53	59	71	239	83	23	20	18	20	21
27		50	59	59	68	247	71	23	21	18	19	21
28		53	65	59	71	239	59	21	20	18	19	21
29		50	65	59	-	223	56	20	20	18	19	21
30		53	68	65	-	207	53	21	20	19	20	21
31		-	71	65	-	175	-	23	-	19	18	-
Month												
October	-											
November 19-30	685											
December	2,351											
Calendar year	-											
January	2,056											
February	1,871											
March	5,560											
April	2,384											
May	1,031											
June	630											
July	577											
August	656											
September	807											
The period	-											
	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet							
October	-	-	-	-	-							
November 19-30	685	68	35	56.2	1,320							
December	2,351	123	53	75.8	4,660							
Calendar year	-	-	-	-	-							
January	2,056	77	46	65.7	4,040							
February	1,871	71	50	66.8	3,710							
March	5,560	360	56	179	11,030							
April	2,384	153	48	79.5	4,730							
May	1,031	68	19	33.3	2,040							
June	630	24	19	21.0	1,250							
July	577	20	17	18.6	1,140							
August	656	30	16	20.5	1,260							
September	807	21	18	20.2	1,200							
The period	-	-	-	-	36,380							

Devil Creek above Campbell Creek, near Malad, Idaho

Location.- Staff gage, lat. 42°18', long. 112°12', in sec. 12, T. 13 S., R. 36 E., 0.6 mile upstream from proposed dam, 1.3 miles upstream from highway crossing of Campbell Creek, 4.5 miles upstream from Evans Dividers, and 7½ miles northeast of Malad.

Records available.- November 1938 to September 1939.

Extremes.- Maximum discharge observed during period of record, 79 second-feet Mar. 25 (gage height, 1.54 feet); minimum observed, 4.1 second-feet July 5; minimum gage height observed, 0.54 foot Feb. 6.

Remarks.- Records fair. Gage read once daily. Small diversions above station for irrigation. Stream receives part of flow of Birch Creek above station. Malad power plant and its small reservoir on Birch Creek may cause slight diurnal fluctuations.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1		-	8.8	8.5	8.2	8.2	28	14	8.5	7.0	6.1	5.8					
2		-	8.8	8.5	9.2	8.2	21	14	8.5	6.7	6.4	5.8					
3		-	8.2	8.8	12	8.5	32	13	8.2	6.4	6.7	5.8					
4		-	9.2	8.5	9.2	8.2	17	13	8.2	6.7	6.4	5.8					
5		-	9.2	8.8	8.2	8.5	12	13	4.5	4.1	6.4	5.8					
6		-	8.5	8.5	4.3	8.8	11	13	8.5	6.7	6.1	5.8					
7		-	9.2	8.5	8.2	8.8	9.2	12	8.2	6.7	6.1	7.0					
8		-	9.2	8.5	8.2	8.8	10	12	8.2	6.4	5.8	6.1					
9		-	9.2	8.2	8.5	8.8	13	12	8.2	6.4	5.6	5.8					
10		-	7.9	8.5	7.6	9.2	13	12	7.9	6.4	5.6	5.8					
11		-	8.5	8.5	8.8	9.2	12	12	7.6	6.1	5.6	6.1					
12		-	8.8	8.5	7.3	9.7	12	12	7.6	6.4	5.8	7.3					
13		-	11	8.8	12	9.7	12	11	7.9	6.1	6.1	7.0					
14		-	8.8	8.5	8.2	9.2	12	11	7.6	6.1	5.6	7.0					
15		-	8.5	8.8	4.8	9.2	12	11	7.6	6.4	5.8	6.4					
16		-	8.2	10	7.6	11	12	11	7.9	6.4	5.4	6.4					
17		-	7.9	9.2	8.5	11	12	10	8.2	6.2	5.8	6.4					
18		9.2	7.9	8.2	8.8	12	11	10	7.6	6.1	5.8	6.1					
19		11	8.5	8.5	9.2	16	11	10	7.6	5.8	5.8	6.4					
20		9.2	8.5	8.8	8.2	19	11	10	7.3	5.8	5.8	6.4					
21		9.2	8.8	8.2	7.6	25	12	10	7.3	5.8	5.8	6.1					
22		9.2	8.5	7.9	7.9	46	12	11	4.3	5.6	5.6	6.4					
23		11	8.5	8.5	8.2	73	13	9.7	7.3	5.8	5.6	6.4					
24		8.5	8.5	8.5	7.9	77	14	9.7	7.3	5.8	5.8	7.3					
25		8.8	8.5	8.5	8.2	79	13	9.7	7.3	5.6	5.8	7.0					
26		8.8	8.2	8.8	7.9	84	12	9.2	7.3	5.8	5.8	7.3					
27		9.2	8.5	8.8	8.5	84	12	8.8	6.7	5.6	5.8	7.0					
28		8.8	8.5	8.8	7.9	41	12	8.8	6.4	5.8	6.4	6.7					
29		8.5	8.8	8.5	-	33	12	8.8	6.7	6.1	6.4	6.7					
30		9.2	8.5	8.5	-	32	15	8.8	7.0	6.4	6.1	6.4					
31		-	8.5	8.2	-	29	-	8.8	-	6.4	6.1	-					
Month													Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....													-	-	-	-	-
November 18-30.....													120.6	11	8.5	9.28	239
December.....													268.6	11	7.9	8.66	533
Calendar year													-	-	-	-	-
January.....													266.3	10	7.9	8.59	528
February.....													231.1	12	4.3	8.25	468
March.....													745.0	79	8.2	24.0	1,480
April.....													410.2	32	9.2	13.7	514
May.....													339.3	14	8.8	10.9	673
June.....													225.4	8.5	4.5	7.45	443
July.....													189.6	7.0	4.1	6.12	376
August.....													183.7	6.7	5.4	5.93	364
September.....													192.1	7.3	5.6	6.40	381
Water year													-	-	-	-	6,290

Devil Creek near Malad, Idaho

Location.- Staff gage and wooden control, lat. 42°13', long. 112°17', in sec. 8, T. 14 S., R. 36 E., 400 feet downstream from dam site of proposed reservoir, 0.5 mile north-east of St. John, 2½ miles northwest of Malad, and 9 miles upstream from confluence with Malad River.

Records available.- October 1931 to September 1939.

Extremes.- Maximum discharge observed during water year 1937-38, 28 second-feet Apr. 20 (gage height, 1.24 feet); minimum observed, 2.6 second-feet Jan. 27, Feb. 19-28, Mar. 1, 5.

Maximum discharge observed during water year 1938-39, 28 second-feet Mar. 26, 27 (gage height, 1.23 feet); minimum observed, 1.8 second-feet July 17-19 (gage height, 0.30 foot).

1931-39: Maximum discharge, 60 second-feet Aug. 17, 1936 (from floodmark made during cloudburst); minimum discharge observed, 0.5 second-foot Sept. 10, 1934.

Remarks.- Records fair. Gage read once daily except during winter, when observations are made three or four times a week. Flow regulated by Evans Dividers (an irrigation diversion works) 3 miles upstream. Several small diversions above station. Stream receives part of flow of Birch Creek above station. Malad power plant, with small reservoir on Birch Creek, may cause slight diurnal fluctuation.

Discharge, in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	5.1	5.1	5.0	2.8	2.6	*6.0	19	16	9.1	5.4	7.2
2	4.0	3.3	*3.1	2.9	*2.8	*4.9	6.3	19	17	10	3.4	7.9
3	4.0	5.3	3.1	*5.0	2.8	7.2	*8.2	20	15	10	3.4	7.9
4	6.8	3.3	*5.1	3.0	*2.8	*4.9	10	23	15	10	5.4	6.1
5	6.8	*3.3	*3.1	*3.0	2.8	2.6	12	19	14	8.1	3.6	7.6
6	6.8	3.3	3.1	3.0	*2.8	*2.8	13	18	*12	8.1	4.0	7.6
7	7.0	3.3	*3.1	*3.0	2.8	3.0	*12	17	11	7.6	3.8	3.7
8	7.2	3.4	3.1	3.0	*2.8	*4.6	11	16	3.5	6.3	3.8	3.4
9	7.0	3.4	*3.1	*3.0	2.8	6.1	*10	16	3.3	6.3	3.3	3.3
10	7.0	*3.4	3.1	3.0	*2.8	*6.0	9.1	15	8.5	6.3	3.3	3.3
11	7.0	3.4	*3.3	*3.0	2.9	5.9	*8.5	15	3.5	7.7	3.1	*5.2
12	5.1	*3.2	*3.4	2.9	*2.9	*6.6	7.9	15	7.7	7.2	3.1	7.0
13	5.1	3.1	3.6	*2.9	2.9	*7.2	5.1	14	7.7	7.0	3.1	7.0
14	5.1	*3.1	*3.5	2.9	*2.8	7.9	11	16	3.9	5.8	3.1	7.0
15	5.1	3.1	3.4	*2.9	2.8	*7.4	9.6	16	9.1	5.8	3.1	7.2
16	5.1	*3.1	*3.4	*2.9	*2.8	6.8	9.1	17	8.9	6.3	3.1	7.0
17	5.4	3.1	3.3	2.9	2.8	*5.8	13	18	8.7	6.6	3.1	7.0
18	5.4	3.0	*3.3	*2.9	*2.7	4.9	15	17	8.7	6.4	4.2	7.0
19	5.4	*3.0	3.3	2.9	2.6	*4.2	20	16	6.3	6.6	3.1	6.6
20	3.7	3.0	*3.2	*2.8	*2.6	3.4	26	16	6.3	6.4	4.6	6.4
21	3.7	3.8	3.1	2.8	2.6	3.1	26	19	5.9	6.1	5.6	7.4
22	4.3	3.8	*3.1	*2.8	*2.6	*3.2	25	17	5.9	6.1	4.8	4.0
23	4.3	*3.8	3.1	*2.8	2.6	3.4	24	16	5.9	4.9	4.0	3.8
24	4.6	3.8	*3.1	2.8	2.6	*3.4	23	16	5.6	3.4	4.4	3.7
25	4.2	*3.8	3.1	*2.8	2.6	3.3	22	13	5.4	3.6	4.4	3.7
26	3.1	3.8	*3.0	2.6	*2.6	*3.8	18	12	5.2	3.4	4.6	4.6
27	3.1	3.4	2.8	2.6	2.6	4.2	19	12	8.1	3.1	7.7	3.1
28	3.0	3.1	*2.9	2.8	*2.6	4.6	18	12	7.9	3.1	*7.4	6.4
29	3.0	3.1	3.0	*2.8	-	4.9	17	12	8.1	3.3	7.2	6.4
30	3.1	*3.1	3.1	2.8	-	5.6	18	15	3.5	3.3	7.2	6.4
31	3.1	-	*3.0	*2.8	-	5.8	-	15	-	4.9	7.2	-

*Interpolated.

Discharge, in second-feet, of Devil Creek near Malad, Idaho, 1937-39--continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	2.3	3.4	3.7	3.6	4.9	11	11	5.8	2.5	3.0	4.2
2	6.6	2.4	3.8	3.7	3.6	4.9	7.6	11	6.1	2.5	2.8	4.2
3	6.4	2.4	3.8	3.7	3.6	4.9	7.6	11	5.8	2.4	2.1	3.7
4	7.0	2.4	3.8	3.7	3.6	4.9	7.6	11	5.8	2.4	2.1	4.4
5	6.4	2.5	3.8	3.7	3.1	4.9	7.4	11	3.4	2.4	4.4	4.4
6	7.0	2.5	3.8	3.4	3.0	4.9	5.4	11	3.4	2.5	4.6	4.3
7	6.0	2.5	3.8	3.1	2.9	4.9	5.4	11	3.4	2.4	4.4	4.8
8	4.9	2.5	4.8	3.4	2.9	4.6	4.9	6.8	3.1	2.4	4.4	4.6
9	4.9	2.5	4.2	3.7	2.9	4.2	4.9	6.8	3.3	3.0	4.6	4.8
10	4.8	2.5	3.9	3.7	3.2	4.1	4.8	5.6	3.7	3.0	4.3	4.8
11	4.4	2.5	3.6	3.7	3.6	4.0	7.6	5.2	3.1	2.4	4.2	2.9
12	4.4	2.5	3.3	4.0	3.6	3.7	12	7.2	3.0	2.2	4.2	2.9
13	3.8	2.4	3.3	4.3	3.6	3.4	10	7.0	4.3	2.2	4.3	3.0
14	3.8	2.4	3.3	4.6	3.6	3.4	10	9.8	4.8	2.2	4.2	3.0
15	3.8	2.4	3.3	4.2	3.6	3.4	11	10.0	4.3	2.2	2.1	5.4
16	4.1	2.4	3.4	3.7	3.6	3.4	10	9.6	5.8	2.1	2.1	5.6
17	4.4	2.5	3.4	3.7	3.6	3.4	10	9.3	5.8	1.8	2.4	4.9
18	4.4	2.4	3.8	3.7	3.8	4.1	10	9.3	5.8	1.8	2.4	4.9
19	3.6	2.4	3.8	3.8	4.0	4.8	11	9.8	3.1	1.8	4.2	5.1
20	2.8	2.4	3.8	3.8	4.0	6.8	10	10	3.0	2.1	4.2	4.9
21	2.6	2.4	3.8	3.7	4.0	8.7	10	10	2.6	2.1	4.2	4.9
22	2.6	2.4	3.8	3.1	4.0	15	9.6	9.8	4.4	2.1	4.2	4.9
23	2.6	2.4	3.8	3.4	4.0	21	9.6	6.4	4.6	2.0	4.2	5.2
24	2.6	2.4	3.6	3.7	4.0	23	11	6.1	4.6	2.0	4.2	5.1
25	2.6	2.4	3.4	3.4	4.0	25	10	5.9	4.3	2.0	4.2	5.6
26	2.5	2.4	2.9	3.1	4.0	28	11	5.4	2.5	5.1	4.2	5.6
27	2.4	2.4	2.5	3.4	4.0	28	9.7	6.5	2.6	5.1	4.2	2.8
28	2.3	2.4	2.7	3.7	4.4	28	9.3	6.4	2.6	5.4	2.2	2.8
29	2.2	2.7	2.9	3.6	-	25	9.8	6.1	2.4	5.2	1.8	2.6
30	2.2	3.0	3.3	3.6	-	19	11	7.0	2.6	4.9	1.8	2.6
31	2.2	-	3.7	3.6	-	17	-	5.9	-	3.0	3.0	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1937.....	152.5	7.2	3.0	4.92	302
November.....	99.7	3.8	3.0	3.32	198
December.....	98.0	3.6	2.8	3.16	194
Calendar year 1937.....	2,265.3	29.0	2.6	6.21	4,490
January 1938.....	89.5	3.0	2.6	2.89	178
February.....	75.6	2.9	2.6	2.74	162
March.....	150.1	7.9	2.6	4.84	298
April.....	432.8	26.0	5.1	14.4	858
May.....	501.0	25.0	12.0	16.2	994
June.....	272.6	17.0	5.2	9.09	541
July.....	192.4	10.0	3.1	6.21	382
August.....	133.7	7.7	3.1	4.31	265
September.....	177.1	8.1	3.1	5.90	351
Water year 1937-38.....	2,376.0	26.0	2.6	6.51	4,710
October 1938.....	126.7	7.0	2.2	4.09	251
November.....	73.7	3.0	2.3	2.46	146
December.....	110.7	4.8	2.5	3.57	220
Calendar year 1938.....	2,336.9	26	2.2	6.40	4,640
January 1939.....	113.6	4.6	3.1	3.66	225
February.....	101.8	4.4	2.9	3.64	202
March.....	323.3	28	3.4	10.4	641
April.....	268.2	12	4.8	8.94	532
May.....	289.7	11	5.2	8.35	513
June.....	119.9	6.1	2.4	4.00	238
July.....	85.2	5.4	1.8	2.75	169
August.....	109.2	4.6	1.8	3.52	217
September.....	128.9	5.6	2.6	4.30	256
Water year 1938-39.....	1,819.9	28	1.8	4.99	3,610

Deep Creek below First Creek, near Malad, Idaho

Location.- Staff gage and wooden control, lat. 42°14', long. 112°11', in sec. 7, T. 14 S., R. 37 E., just downstream from site of proposed reservoir, 1 mile north and 3 1/2 miles east of Malad, and 12 miles upstream from confluence with Malad River.

Records available.- October 1931 to September 1939.

Extremes.- Maximum discharge observed during year, 25 second-feet Mar. 27, 31 (gage height, 1.20 feet); minimum discharge, 1.2 second-feet Aug. 24 (gage height, 0.16 foot).

1931-39: Maximum discharge observed, 172 second-feet July 8, 1937, from rating curve extended logarithmically above 40 second-feet; minimum observed, 0.3 second-foot Aug. 29, 1934.

Remarks.- Records fair. Small diversions above station. Flow regulated at reservoir, 2 1/2 miles upstream. Gage read once daily.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet) (Shifting-control method used Mar. 21 to July 29, September 20-30)

0.1	0.7	0.7	9.1	1.3	27.4
.3	2.7	.9	13.8		
.5	5.5	1.1	19.8		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	4.6	3.5	3.4	2.8	4.4	22	17	12	12	2.7	1.6
2	2.7	4.9	3.2	3.5	2.7	4.2	21	19	12	11	2.5	1.3
3	2.5	4.8	3.1	3.2	3.0	4.3	20	18	11	12	2.7	1.4
4	2.6	5.0	3.4	3.4	3.1	4.2	19	18	9.6	12	2.5	1.6
5	2.7	4.6	3.5	3.5	2.7	4.4	21	17	9.1	11	2.4	1.3
6	2.8	4.4	3.2	3.2	3.0	4.6	19	16	10	11	2.3	1.8
7	3.0	4.3	3.5	3.1	2.8	4.3	19	16	11	10	2.4	1.7
8	3.1	4.6	3.4	3.1	2.7	4.0	18	16	13	10	2.3	2.0
9	3.4	4.4	3.6	3.0	2.8	3.6	15	14	13	9.6	2.0	1.8
10	3.2	4.0	3.4	3.1	3.0	4.0	14	14	15	9.5	2.3	1.8
11	3.1	3.6	3.4	3.2	3.1	4.0	14	12	14	9.3	2.4	2.2
12	3.4	3.5	3.5	3.1	2.8	4.0	15	13	15	8.9	2.3	2.3
13	3.2	3.4	3.2	3.0	3.0	4.3	14	12	13	9.1	2.2	2.4
14	3.5	3.5	3.4	3.2	2.7	4.2	14	11	13	8.9	2.0	2.3
15	4.0	3.7	3.2	3.4	3.0	4.0	14	11	13	9.5	1.9	2.0
16	4.3	3.6	3.4	3.1	2.7	4.3	13	11	12	8.9	1.6	1.8
17	4.8	4.0	3.2	3.0	2.8	4.6	13	11	11	9.1	1.4	1.7
18	4.6	4.3	3.5	3.2	2.7	5.0	13	11	14	8.7	1.6	1.8
19	4.0	4.0	3.6	3.1	3.0	5.5	14	10	13	7.8	1.3	1.6
20	4.2	3.4	3.5	3.1	3.1	5.8	14	10	13	7.8	1.4	1.8
21	4.3	3.2	3.4	3.0	3.0	7.4	15	11	15	6.0	1.6	2.0
22	4.3	3.5	3.5	2.8	3.4	9.3	16	11	15	6.7	1.3	2.2
23	4.2	3.1	3.6	2.7	3.5	14	16	12	12	5.7	1.4	1.9
24	3.1	3.0	3.5	2.8	3.6	21	17	12	12	5.0	1.2	2.2
25	2.7	3.0	3.4	3.0	3.7	22	16	13	12	4.6	1.4	1.9
26	3.4	2.7	3.2	3.1	4.0	23	17	13	12	3.7	1.3	1.7
27	3.5	2.7	3.5	3.2	4.2	25	17	12	12	3.5	1.4	2.0
28	3.6	3.0	3.6	3.4	4.3	21	17	11	11	3.1	1.6	1.9
29	4.0	3.2	3.7	3.1	-	22	17	11	12	2.7	1.8	1.7
30	4.3	3.4	3.6	3.0	-	23	18	12	12	2.6	1.6	1.8
31	4.6	-	3.5	3.1	-	25	-	11	-	2.5	2.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	110.2	4.8	2.5	3.55	219
November.....	113.6	5.0	2.7	3.79	225
December.....	106.2	3.7	3.1	3.43	211
Calendar year 1938.....	3,628.2	40	2.5	9.94	7,190
January.....	97.1	5.5	2.7	3.13	193
February.....	87.2	4.3	2.7	3.11	173
March.....	300.9	25	3.6	9.71	597
April.....	492	22	13	16.4	976
May.....	405	19	10	13.1	805
June.....	365.6	15	9.1	12.2	725
July.....	244.4	12	2.5	7.88	485
August.....	59.2	2.7	1.2	1.91	117
September.....	55.8	2.4	1.3	1.86	110
Water year 1938-39.....	2,436.9	25	1.2	6.68	4,830

Weber River near Oakley, Utah

Location.- Water-stage recorder, lat. 40°44'10", long. 111°14'45". in NE¼ sec. 15, T. 1 S., R. 6 E., near mouth of canyon, 2 miles downstream from South Fork, 3 miles north-east of Oakley, and 6 miles upstream from Beaver or Kamas Creek.

Drainage area.- 163 square miles.

Records available.- October 1904 to September 1939.

Average discharge.- 33 years (1906-39), 238 second-feet.

Extremes.- Maximum discharge during year, 822 second-feet May 5 (gage height, 3.03 feet); minimum discharge recorded, 45 second-feet Aug. 26.

1904-39: Maximum discharge observed, 4,000 second-feet July 6, 1907, June 5-7, 1909; minimum discharge recorded, 26 second-feet Aug. 27, 1934, Nov. 21, 1935.

Remarks.- Records good except those for periods of ice effect, Nov. 6-8, 12-19, 21-30, Dec. 1-3, 12-20, Dec. 22 to Mar. 21 (computed on basis of records for station near Coalville and weather records), and those for period of missing gage heights, Aug. 29 to Sept. 14 (computed on basis of records for adjacent streams), which are fair. No large diversion above gage. Flow regulated slightly by storage at headwaters in several small lakes that serve as reservoirs and a small reservoir on Smith and Morehouse Creek. Total capacity of all reservoirs, about 3,200 acre-feet.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.1	41	1.6	126	2.2	306	2.8	640
1.2	55	1.8	175	2.4	397	3.0	795
1.4	88	2.0	232	2.6	508	3.1	885

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1	66	86	75			60	106	626	670	150	106	48					
2	68	78	80			60	116	678	558	148	102	48					
3	68	74	80			60	130	648	565	144	97	48					
4	68	97	83			60	135	715	558	137	93	48					
5	71	93	78			60	144	779	521	135	90	48					
6	81	85	76			60	141	685	450	133	85	50					
7	74	80	76			60	141	655	418	124	86	54					
8	71	85	76			60	146	592	368	118	88	54					
9	68	86	74			60	166	678	368	114	92	52					
10	69	86	74			60	163	747	359	112	88	52					
11	66	86	74			60	146	708	340	116	80	54					
12	65	80	70			60	156	619	336	112	76	60					
13	63	80	70			65	170	540	336	112	65	60					
14	71	80	70			65	179	578	336	114	58	58					
15	92	85	70			65	181	678	310	112	60	58					
16	106	85	70			70	179	670	254	112	61	57					
17	97	85	70			70	179	640	275	114	60	54					
18	92	80	70			70	164	571	260	106	57	52					
19	86	80	70			75	198	640	229	102	54	52					
20	86	85	70			75	210	619	210	99	54	51					
21	85	80	69			80	239	592	193	108	52	51					
22	81	80	70			80	290	565	161	112	49	51					
23	80	75	70			95	368	491	176	110	49	49					
24	78	75	70			99	363	467	176	108	48	49					
25	78	75	70			101	323	424	190	104	47	51					
26	78	75	65			101	294	392	173	95	47	51					
27	76	75	65			99	298	392	163	93	49	52					
28	76	75	65			97	378	429	156	95	47	50					
29	74	75	65			95	521	592	150	99	50	54					
30	73	75	65			95	571	655	146	102	50	52					
31	83	-	66			99	-	692	-	104	50	-					
Month													Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October													2,388	106	63	77.0	4,740
November													2,436	97	74	81.2	4,630
December													2,215	83	65	71.5	4,390
Calendar year 1938													78,906	1,730	-	216	156,500
January													1,880	-	-	60	3,690
February													1,980	-	-	60	3,350
March													2,316	101	60	74.7	4,590
April													6,905	571	106	227	13,500
May													18,757	779	392	605	37,200
June													9,435	670	146	314	18,710
July													3,534	150	93	114	7,010
August													2,090	106	47	67.4	4,150
September													1,568	60	48	52.3	3,110
Water year 1938-39													55,084	779	47	151	109,200

Weber River near Coalville, Utah

Location.- Water-stage recorder, lat. 40°53'40", long. 111°24'00", in NE¼ sec. 20, T. 2 N., R. 5 E., at bridge 1½ miles upstream from high-water contour for Echo Reservoir, 1½ miles south of Coalville, and 6 miles downstream from Silver Creek.

Drainage area.- 438 square miles.

Records available.- April 1927 to September 1939.

Average discharge.- 12 years, 210 second-feet.

Extremes.- Maximum discharge during year, 1,170 second-feet Mar. 22 (gage height, 3.43 feet); minimum, 13 second-feet July 20 (gage height, 0.00 foot).
1927-39: Maximum discharge observed, 1,960 second-feet June 17, 1929 (gage height, 4.30 feet); minimum discharge, 6 second-feet Sept. 20, 1934 (gage height, -0.23 foot).

Remarks.- Records good except those for periods of ice effect, Nov. 13, 15-17, Nov. 20 to Mar. 10, Mar. 12-16, which were computed on basis of records for station at Echo corrected for storage and inflow from Chalk Creek and are fair. Many diversions for irrigation above and below station. Records do not include water diverted from Weber River Basin through Weber-Provo diversion canal. Flow slightly regulated by several small reservoirs above station.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

0.0	15	0.6	70	1.2	181	1.8	346	2.6	700
.2	28	.8	101	1.4	228	2.0	420	3.0	915
.4	45	1.0	138	1.6	282	2.3	550	3.5	1,210

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	144				120	546	665	670	3f	42	29
2	65	153				115	333	675	453	3f	46	27
3	65	151				130	364	600	357	3f	47	25
4	66	181				130	353	627	346	3f	49	25
5	82	221				125	339	680	343	3f	50	25
6	60	172				110	307	600	323	3f	55	27
7	82	159				130	294	550	289	4f	56	32
8	85	170				135	279	487	246	4f	49	36
9	88	190				130	320	478	209	3f	43	36
10	93	183				125	291	550	223	3f	33	35
11	91	179				132	265	522	192	3f	30	37
12	90	126				150	260	474	179	3f	26	37
13	88	125				180	262	397	153	2f	28	38
14	85	168				200	257	350	130	2f	27	37
15	96	175				170	254	412	121	2f	30	40
16	132	185				240	249	445	106	1f	32	38
17	148	190				265	231	420	103	1f	30	37
18	134	151				352	238	357	134	1f	28	37
19	115	148				446	254	330	132	1f	27	36
20	112	160				508	260	353	112	1f	26	34
21	112	155				518	298	326	98	1f	25	34
22	108	145				617	371	304	82	1f	25	34
23	106	145				665	449	276	73	1f	22	35
24	106	140				805	509	298	66	1f	21	37
25	103	140				696	470	310	72	1f	22	41
26	101	135				517	420	260	76	2f	22	43
27	101	135				390	393	218	67	2f	28	42
28	101	130				304	424	204	57	2f	28	46
29	99	130				313	536	249	49	2f	30	52
30	99	130				313	590	339	44	3f	31	49
31	115	-				316	-	513	-	3f	30	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,009	148	61	97.1	5,970
November.....	4,718	221	125	157	9,360
December.....	4,185	-	-	135	8,500
Calendar year 1938.....	100,532	1,540	50	275	199,400
January.....	3,410	-	-	110	6,760
February.....	3,220	-	-	115	6,390
March.....	9,147	696	110	295	18,140
April.....	10,216	590	231	341	20,260
May.....	13,262	680	204	428	26,500
June.....	5,504	670	44	183	10,920
July.....	842	41	14	27.2	1,670
August.....	1,037	55	21	35.5	2,060
September.....	1,081	52	25	36.0	2,140
Water year 1938-39.....	59,631	696	14	163	116,500

Peak discharge.- Mar. 22 (11 p.m.) 1,170 sec.-ft.; Mar. 25 (12:30 a.m.) 1,160 sec.-ft.; Mar. 25 (11 p.m.) 937 sec.-ft.; June 1 (11 a.m.) 740 sec.-ft.

WEBER RIVER BASIN

Echo Reservoir at Echo, Utah

Location.- Staff gage, lat. 40°57'50", long. 111°26'00", in NW¼SW¼ sec. 30, T. 3 N., R. 5 E., near outlet works at left end of Echo Dam, on Weber River, 1 mile southeast of Echo. Zero of gage is at mean sea level (surveys of Bureau of Reclamation).

Drainage area.- 732 square miles.

Records available.- October 1930 to September 1939.

Extremes.- Maximum contents during year, 73,430 acre-feet May 15-21 (elevation, 5,560.0 feet); minimum, 2,180 acre-feet Sept. 30 (elevation, 5,476.1 feet).
1930-39: Maximum contents, 73,940 acre-feet May 31, 1937 (elevation, 5,560.35 feet); no storage, Sept. 12 to Dec. 3, 1931, Sept. 24 to Nov. 2, 1934.

Remarks.- Reservoir is formed by earth-fill dam; storage began in October 1930; dam completed in 1931. Capacity, 74,000 acre-feet between elevations 5,450 feet (bottom of outlet tunnel) and 5,560.35 feet (top of radial gates on spillway) above mean sea level. Practically no dead storage. Figures given herein represent usable contents. Elevation of spillway crest is 5,543 feet. Water is used for irrigation on lands of Weber River Water Users Association. Gage read about 6 a.m. daily; contents are as of that time.

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19,480	16,730	16,800	18,280	18,460	18,430	37,980	64,260	69,610	57,820	31,490	11,700
2	19,040	16,960	16,960	18,280	18,500	18,350	38,850	65,910	70,390	56,870	30,980	11,090
3	18,720	16,930	16,930	18,320	18,460	18,350	39,740	67,570	70,670	56,830	30,470	10,490
4	18,430	16,930	17,000	18,320	18,500	18,350	40,720	69,110	70,740	54,830	29,910	9,900
5	18,140	17,070	17,180	18,280	18,500	18,390	41,540	70,670	70,670	53,870	29,360	9,320
6	17,850	17,140	17,320	18,240	18,500	18,350	42,440	71,970	70,460	52,810	28,810	8,780
7	17,540	17,140	17,380	18,210	18,500	18,350	43,160	72,480	70,100	51,870	28,180	8,500
8	17,240	17,100	17,500	18,180	18,500	18,390	43,840	72,780	69,960	50,970	27,600	7,870
9	16,960	17,100	17,680	18,180	18,500	18,430	44,610	72,860	69,750	49,970	26,930	7,430
10	16,630	17,070	17,820	18,180	18,460	18,460	45,200	72,990	69,540	49,170	26,260	7,020
11	16,330	17,040	17,990	18,210	18,430	18,460	45,980	72,990	69,250	48,370	25,560	6,650
12	16,060	17,000	18,030	18,280	18,430	18,500	46,460	72,990	68,830	47,450	24,860	6,280
13	16,900	16,930	17,920	18,320	18,430	18,640	47,040	72,990	68,410	46,450	24,180	6,280
14	16,900	16,860	17,960	18,350	18,430	18,940	47,740	73,140	67,850	45,670	23,460	6,280
15	16,860	16,860	17,990	18,350	18,500	19,230	48,330	73,430	67,150	44,630	22,800	6,280
16	16,900	16,930	18,140	18,350	18,500	19,680	48,980	73,430	66,460	43,610	22,150	6,280
17	17,000	16,960	18,210	18,350	18,500	20,280	49,580	73,430	65,700	42,670	21,510	6,220
18	17,000	16,960	18,240	18,350	18,500	21,120	50,120	73,430	65,220	41,670	20,810	5,990
19	16,960	16,930	18,240	18,350	18,500	22,150	50,780	73,430	64,940	40,670	20,130	5,720
20	16,900	16,860	18,280	18,290	18,540	23,420	51,450	73,430	64,670	39,670	19,480	5,460
21	16,860	16,830	18,320	18,280	18,540	24,780	52,130	73,430	64,460	38,770	18,780	5,140
22	16,800	16,780	18,280	18,280	18,540	26,130	53,000	73,280	64,190	37,970	18,140	4,830
23	16,730	16,660	18,280	18,240	18,540	27,960	54,000	72,780	63,780	37,150	17,500	4,520
24	16,730	16,660	18,280	18,210	18,500	29,500	55,280	72,340	63,350	36,340	16,800	4,160
25	16,730	16,660	18,240	18,210	18,540	31,210	56,640	71,900	62,620	35,590	16,110	3,830
26	16,730	16,660	18,210	18,210	18,570	32,820	57,820	71,540	61,970	34,870	15,440	3,520
27	16,730	16,660	18,180	18,210	18,500	34,040	58,940	71,180	61,130	34,190	14,770	3,180
28	16,700	16,660	18,180	18,240	18,460	34,980	59,930	70,870	60,460	33,550	14,210	2,840
29	16,700	16,660	18,210	18,320	-	35,730	61,130	70,100	59,660	32,970	13,600	2,500
30	16,700	16,730	18,320	18,350	-	36,440	62,490	69,540	58,740	32,490	12,980	2,180
31	16,700	-	18,320	18,460	-	37,150	-	69,250	-	31,930	12,340	-

Monthly elevation, and contents, water year October 1938 to September 1939

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1.....	5,511.25	19,480	-2,750
Nov. 1.....	5,507.4	16,730	+70
Dec. 1.....	5,507.5	16,800	+1,480
Calendar year 1938..	-	-	-12,840
Jan. 1.....	5,509.6	18,280	+180
Feb. 1.....	5,509.85	18,460	-30
Mar. 1.....	5,509.8	18,430	+19,550
Apr. 1.....	5,531.85	37,980	+26,280
May 1.....	5,553.5	64,260	+6,350
June 1.....	5,557.35	69,610	-11,790
July 1.....	5,548.7	57,820	-26,330
Aug. 1.....	5,525.3	31,490	-19,790
Sept. 1.....	5,499.55	11,700	-9,810
Oct. 1.....	5,474.8	1,890	-
Water year 1938-39..	-	-	-17,590

Weber River at Echo, Utah

Location.- Water-stage recorder, lat. 40°58'05", long. 111°26'15", in NE¼NE¼ sec. 25, T. 3 N., R. 4 E., 600 feet upstream from Echo Creek, 2,400 feet downstream from Echo Dam, and 3,200 feet southeast of Echo.

Drainage area.- 732 square miles.

Records available.- April 1927 to September 1939.

Average discharge.- 12 years, 268 second-feet.

Extremes.- Maximum discharge during year, 705 second-feet May 10 (gage height, 3.49 feet); minimum, 4 second-feet Apr. 6, 7.
1927-39: Maximum discharge, 2,330 second-feet May 30, 31, 1937 (gage height, 5.83 feet); minimum daily discharge, 3 second-feet Mar. 20-26, Mar. 31 to Apr. 8, 1936.

Remarks.- Records excellent. Many diversions for irrigation above and below station. One small diversion between gage and Echo Dam. Flow regulated by Echo Reservoir (capacity, 74,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1	297	133	137	152	109	163	27	7	396	562	316	348					
2	272	156	137	152	109	145	27	8	353	558	326	348					
3	251	172	158	152	111	137	27	5	400	558	339	339					
4	237	186	114	152	127	137	27	9	427	562	342	329					
5	242	209	120	152	135	137	27	108	517	576	342	322					
6	260	209	139	152	135	137	12	399	558	566	350	303					
7	266	209	139	139	135	137	5	499	482	566	360	287					
8	248	209	139	118	135	137	17	553	434	558	370	284					
9	199	234	139	112	135	137	25	553	407	517	381	280					
10	127	245	139	112	135	137	25	660	415	499	385	248					
11	102	223	141	112	135	137	25	675	430	512	381	248					
12	97	209	141	112	135	137	25	585	466	555	392	120					
13	107	207	111	112	135	73	26	430	470	548	392	45					
14	112	184	101	133	135	51	26	336	478	548	378	53					
15	111	174	101	139	135	70	27	370	512	558	374	57					
16	131	199	129	141	135	42	27	470	508	566	370	71					
17	167	209	143	141	135	24	27	494	482	553	385	147					
18	177	209	152	141	135	24	12	490	369	544	378	194					
19	174	209	154	141	135	24	5	419	287	526	374	191					
20	174	209	154	141	135	24	6	438	272	482	374	194					
21	174	209	154	141	135	24	6	522	272	458	374	199					
22	174	186	154	129	135	25	7	595	294	438	381	204					
23	145	147	154	123	135	25	6	615	336	430	385	228					
24	133	137	154	112	135	25	6	620	419	415	378	225					
25	133	137	154	109	135	25	6	580	454	404	385	225					
26	133	137	137	109	154	26	6	540	482	374	370	231					
27	133	137	118	109	163	27	7	553	466	360	356	239					
28	133	137	112	109	163	26	7	566	482	356	353	239					
29	133	137	112	109	-	27	7	590	512	339	353	223					
30	133	137	139	109	-	27	7	630	553	332	353	209					
31	133	-	152	109	-	27	-	558	-	319	350	-					
Month													Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....													5,308	297	97	171	10,630
November.....													5,495	245	133	183	10,900
December.....													4,228	158	101	136	9,390
Calendar year 1938.....													140,503	2,020	5	385	278,700
January.....													3,974	152	109	128	7,880
February.....													3,771	163	109	135	7,480
March.....													2,294	163	24	74.0	4,550
April.....													490	27	5	16.3	972
May.....													13,880	675	7	448	27,530
June.....													12,853	558	272	428	25,490
July.....													15,119	576	319	488	29,990
August.....													11,347	392	318	366	22,510
September.....													6,608	346	45	220	13,100
Water year 1938-39.....													85,365	675	5	234	169,300

Weber River at Devils Slide, Utah

Location.— Water-stage recorder, lat. $41^{\circ}03'40''$, long. $111^{\circ}34'25''$, in $SE\frac{1}{4}$ sec. 23, T. 4 N., R. 3 E., 500 feet downstream from highway underpass, $\frac{1}{2}$ miles west of Devils Slide, and $\frac{1}{4}$ miles downstream from Lost Creek.

Drainage area.— 1,100 square miles.

Records available.— February 1905 to September 1939.

Average discharge.— 34 years, 471 second-feet.

Extremes.— Maximum discharge during year, 682 second-feet May 11 (gage height, 3.33 feet); minimum, 65 second-feet Sept. 14.

1905-39: Maximum discharge observed, 6,000 second-feet May 22, 1920; minimum discharge, 18 second-feet Sept. 23, 1934.

Remarks.— Records good except those for days of missing gage-height record, Nov. 6, 7, and those for periods of ice effect, Dec. 13-21, Feb. 2 to Mar. 16, which were computed on basis of records for stations at Echo and Gateway and are fair. Many diversions above station for irrigation and domestic supply. Flow regulated by storage in Echo Reservoir (capacity, 74,000 acre-feet).

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

1.2	58	2.0	517
1.3	68	2.2	532
1.4	80	2.4	586
1.6	109	2.6	351
1.8	144	2.8	428

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	305	162	152	172	130	155	172	170	441	541	337	351
2	286	177	152	174	130	165	192	139	377	556	337	344
3	264	203	162	174	130	155	225	114	396	546	344	345
4	280	206	161	172	145	155	245	91	423	551	344	337
5	250	258	157	170	155	155	255	130	480	551	348	331
6	275	245	164	172	155	155	222	407	560	551	344	351
7	273	240	164	156	155	155	187	555	512	546	355	298
8	269	245	166	133	155	155	157	595	445	551	356	292
9	235	258	172	121	155	160	227	570	423	505	377	278
10	172	280	170	126	155	165	210	645	424	477	381	255
11	150	266	168	128	155	170	190	670	441	450	351	253
12	144	255	168	128	155	180	181	595	471	450	358	178
13	124	237	140	126	155	170	201	445	471	517	358	66
14	118	220	125	142	155	170	213	358	460	512	377	68
15	115	203	125	158	155	185	203	362	508	517	370	72
16	150	218	155	158	155	195	210	441	522	557	370	72
17	168	242	170	168	155	208	201	467	494	557	373	134
18	192	235	160	160	155	295	192	471	377	505	354	194
19	194	237	180	160	155	412	190	450	317	454	373	192
20	194	255	180	164	155	412	194	416	295	457	377	190
21	194	252	180	164	155	348	208	489	292	445	351	196
22	194	213	181	150	155	334	210	555	311	450	358	196
23	183	179	179	144	155	299	208	585	334	415	358	225
24	152	152	181	135	155	240	210	605	432	408	351	227
25	152	154	177	130	155	242	196	570	462	365	354	230
26	148	152	162	133	175	232	177	531	471	354	351	255
27	142	152	144	135	165	201	168	536	471	351	356	245
28	152	150	151	135	185	142	168	555	475	351	355	245
29	154	150	153	133	-	162	170	570	503	341	355	235
30	156	150	154	131	-	137	162	605	531	375	355	215
31	156	-	172	131	-	146	-	585	531	351	358	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5,909	505	118	161	11,720
November.....	6,286	280	150	210	12,470
December.....	5,005	181	125	161	9,930
Calendar year 1938.....	162,615	2,080	76	446	323,000
January.....	4,571	174	121	147	9,070
February.....	4,335	185	130	155	8,800
March.....	6,457	412	137	208	12,810
April.....	5,972	255	135	199	11,550
May.....	14,247	670	91	460	28,280
June.....	15,150	560	292	458	26,060
July.....	14,641	551	341	472	29,040
August.....	11,406	388	337	358	22,620
September.....	6,833	351	66	228	15,550
Water year 1938-39.....	98,612	670	66	271	196,000

Weber River at Gateway, Utah

Location.- Water-stage recorder, lat. 41°08', long. 111°50', in NW¼ sec. 27, T. 5 N., R. 1 E., 800 feet downstream from Union Pacific Railroad bridge, 2,500 feet downstream from Strawberry Creek, and 2,500 feet east of section house at Gateway.

Drainage area.- 1,610 square miles.

Records available.- June 1919 to September 1939. October 1889 to July 1903, at site 1 mile downstream, published as Weber River near Uinta; records equivalent.

Average discharge.- 19 years (1920-39), 613 second-feet.

Extremes.- Maximum discharge during year, 1,170 second-feet Mar. 22 (gage height, 2.90 feet); minimum, 138 second-feet Sept. 16, 17.

1889-1903, 1919-39: Maximum discharge, 7,980 second-feet May 31, 1890; minimum, 45 second-feet Sept. 24, 1934.

Remarks.- Records excellent. Several diversions for irrigation above and below station. Flow affected by storage in East Canyon Creek and Echo Reservoirs (capacity, 23,000 and 74,000 acre-feet, respectively).

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

0.6	128	1.2	291	2.2	755
.7	147	1.4	365	2.4	870
.8	170	1.6	448	2.6	990
.9	196	1.8	542	2.8	1,110
1.0	225	2.0	645	3.0	1,230

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	409	284	235	241	180	228	788	694	667	582	405	397
2	401	274	235	244	191	225	822	645	532	567	393	389
3	385	288	271	244	193	219	852	603	513	572	401	389
4	342	323	316	241	202	219	828	572	542	567	414	385
5	323	373	260	241	205	216	799	532	542	577	414	389
6	342	338	264	244	205	208	667	556	629	582	409	393
7	354	327	260	251	205	219	577	799	634	577	418	385
8	354	327	260	216	208	222	562	822	547	567	409	381
9	335	355	260	196	208	228	645	782	572	542	418	365
10	295	365	264	199	202	238	582	799	547	504	426	342
11	251	361	247	202	208	257	518	870	547	494	426	335
12	222	313	235	202	202	305	494	852	557	518	431	323
13	216	309	222	196	208	365	557	689	547	528	435	191
14	225	309	199	205	208	323	603	577	532	537	431	145
15	225	284	205	219	213	316	567	518	547	528	409	141
16	241	291	215	222	210	342	547	577	582	542	393	139
17	274	323	235	219	202	426	532	694	537	552	397	154
18	295	313	238	228	213	552	542	813	537	542	418	218
19	291	313	251	225	219	750	562	582	457	528	405	225
20	288	320	247	225	213	822	582	532	414	513	409	216
21	284	313	251	225	210	799	618	582	401	494	409	219
22	284	298	247	216	208	858	656	656	393	476	414	219
23	277	287	244	205	210	822	678	711	414	471	426	235
24	251	241	247	202	216	810	744	760	471	462	422	244
25	247	241	241	193	213	834	694	733	528	453	414	251
26	244	235	235	196	215	898	603	678	542	444	418	254
27	247	235	213	193	225	892	577	634	528	414	409	267
28	247	235	208	193	231	716	603	640	528	409	405	277
29	238	231	213	188	-	650	634	634	537	422	401	281
30	235	231	216	188	-	650	662	656	567	431	397	264
31	251	-	241	193	-	706	-	733	-	439	397	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	8,873	409	216	286	17,600
November.....	8,877	373	231	296	17,610
December.....	7,463	318	199	241	14,800
Calendar year 1938.....	232,703	2,930	143	638	461,600
January.....	6,832	244	188	214	13,150
February.....	5,821	231	180	208	11,550
March.....	15,292	888	208	493	30,330
April.....	19,095	852	494	636	37,870
May.....	20,745	870	518	669	41,150
June.....	15,941	667	393	531	31,620
July.....	15,854	582	409	511	31,410
August.....	12,773	435	393	412	26,330
September.....	8,411	397	139	280	16,680
Water year 1938-39.....	145,757	888	139	399	289,100

Weber River near Plain City, Utah.

Location.- Chain gage, lat. 41°16'42", long. 112°05'30", in NW¼NE¼ sec. 8, T. 6 N., R. 2 W., at county highway bridge 1 mile downstream from Fourmile Creek, 1½ miles south of Plain City, and 6 miles upstream from mouth.

Drainage area.- 2,060 square miles.

Records available.- May 1905 to September 1939. Records collected in 1904 by State engineer.

Average discharge.- 32 years (1906-19, 1920-39), 806 second-feet.

Extremes.- Maximum discharge observed during year, 1,610 second-feet Mar. 25 (gage height, 10.30 feet); minimum observed, 10 second-feet Aug. 18, 19.

1904-39: Maximum discharge observed, 7,580 second-feet June 6, 1909 (gage height, 19.1 feet); practically no flow during latter part of several summers since 1915.

Remarks.- Records fair. Discharge interpolated Jan. 2. In summer practically entire flow of Weber River above station is diverted for irrigation. Flow is affected by storage in Echo, East Canyon Creek, and Pine View Reservoirs. Gage read once daily.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	404	416	424	358	291	1,230	1,330	193	17	24	14
2	50	460	438	426	350	291	1,270	1,290	167	27	20	16
3	49	460	465	428	343	291	1,450	1,260	80	25	21	19
4	45	465	494	456	288	294	1,050	1,240	69	30	18	17
5	36	559	526	440	271	278	995	1,100	104	17	16	18
6	49	515	500	444	274	265	895	825	92	27	16	12
7	56	498	473	448	271	264	855	960	185	24	15	29
8	67	507	465	412	265	284	880	1,040	161	22	12	23
9	33	533	458	389	262	298	1,080	940	85	19	16	33
10	90	568	454	393	266	311	1,050	647	82	19	18	31
11	99	555	444	412	271	327	890	623	63	18	18	38
12	74	546	432	408	274	460	830	518	56	19	15	45
13	62	528	402	408	278	557	812	758	49	17	19	42
14	67	502	380	412	265	602	890	580	51	14	13	49
15	74	490	412	416	271	561	895	465	47	14	16	64
16	87	482	406	412	278	616	855	314	29	15	16	80
17	134	490	410	416	258	715	835	235	29	13	14	53
18	292	500	424	420	240	800	805	188	74	22	10	60
19	345	500	436	412	252	833	825	126	87	21	10	64
20	334	498	442	408	265	1,190	835	102	73	18	16	53
21	327	502	460	428	258	1,200	855	77	63	17	12	47
22	334	484	444	412	249	1,300	870	58	49	25	18	63
23	313	475	436	389	265	1,470	885	58	46	17	13	61
24	266	465	444	359	274	1,440	970	59	34	25	13	55
25	244	452	448	363	268	1,610	995	102	30	15	15	56
26	224	450	424	370	271	1,500	990	97	26	15	14	70
27	209	414	382	382	276	1,540	990	77	23	12	18	45
28	279	412	404	389	294	1,530	1,120	58	25	16	26	35
29	356	414	408	382	-	1,360	1,160	65	23	13	18	33
30	341	414	412	370	-	1,360	1,200	58	18	17	15	32
31	370	-	420	363	-	1,370	-	59	-	17	16	-
Month												
October	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet							
October	5,392	370	36	174	10,690							
November	14,542	568	404	485	28,840							
December	13,560	526	382	437	26,900							
Calendar year 1938	225,774	3,960	13	61.9	447,800							
January	12,571	448	359	406	24,930							
February	7,739	358	240	276	15,350							
March	25,338	1,610	255	317	50,260							
April	29,252	1,450	805	975	58,020							
May	15,609	1,330	58	504	30,960							
June	2,113	193	18	70.4	4,190							
July	592	30	12	19.1	1,170							
August	501	26	10	16.2	994							
September	1,237	70	12	41.2	2,450							
Water year 1938-39	128,446	1,610	10	352	254,800							

Chalk Creek at Coalville, Utah

Location.- Water-stage recorder, lat. 40°55'10", long. 111°23'55", in SE¼ sec. 8, T. 2 N., R. 5 E., 300 feet upstream from highway bridge in Coalville, a third of a mile upstream from confluence with Weber River, and 7/8 miles downstream from Silver Creek.

Drainage area.- 253 square miles.

Records available.- October 1904 to December 1905, April 1927 to September 1939.

Average discharge.- 12 years (1927-39), 53.8 second-feet.

Extremes.- Maximum discharge during year, 284 second-feet Mar. 22 (gage height, 1.65 feet); minimum, 4 second-feet Oct. 4.
1927-39: Maximum discharge observed, 696 second-feet May 4, 1929 (gage height, 4.00 feet); minimum, less than one second-foot for several days during June to November 1934.

Remarks.- Records fair. Discharge for Sept. 9-30 computed from once-daily readings of gage. No diversion below station. Flow affected by diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	28	20	17	14	15	126	243	101	22	10	5
2	6	28	20	19	15	14	140	233	89	17	9	5
3	6	26	22	18	14	16	140	202	74	15	8	5
4	4	29	23	19	14	16	136	204	65	11	8	5
5	7	30	26	17	15	15	122	216	92	14	7	5
6	10	20	20	18	15	14	80	170	63	12	6	6
7	8	20	24	12	15	17	72	159	69	8	7	6
8	9	23	26	14	15	17	63	142	59	8	7	7
9	10	26	23	15	15	17	84	142	59	8	6	8
10	12	26	23	15	14	17	72	136	62	8	6	6
11	15	24	14	17	15	16	60	154	56	7	6	7
12	15	15	7	17	14	20	62	115	56	6	6	8
13	12	18	12	14	15	36	74	107	48	6	5	8
14	11	23	14	15	15	41	84	92	42	6	5	8
15	11	21	20	16	15	30	82	84	39	6	5	9
16	19	28	23	16	13	56	84	84	37	6	5	8
17	21	26	19	17	14	71	74	76	37	6	5	9
18	20	20	17	15	18	120	79	68	45	6	5	8
19	21	20	21	16	15	159	89	63	44	6	5	8
20	22	26	20	16	15	147	94	59	40	6	5	8
21	24	18	20	16	15	142	108	55	37	6	6	8
22	26	11	19	12	15	162	134	51	36	6	6	6
23	25	15	15	14	15	183	155	48	37	6	6	6
24	24	18	20	14	16	183	161	53	33	6	6	6
25	23	20	12	13	16	192	144	63	30	6	5	6
26	23	18	15	13	15	202	120	63	28	6	5	6
27	23	17	15	12	15	144	120	62	27	6	5	6
28	22	18	17	14	15	82	148	56	26	6	5	6
29	22	20	18	14	-	72	179	53	24	6	6	6
30	22	20	19	15	-	62	211	55	23	6	6	6
31	24	-	15	15	-	82	-	71	-	10	6	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October	501		26	4	16.2	994						
November	652		30	11	21.7	1,290						
December	579		26	7	18.7	1,150						
Calendar year 1938	27,878		640	4	76.4	55,280						
January	476		19	12	15.4	944						
February	414		16	13	14.8	821						
March	2,360		202	14	76.1	4,680						
April	3,299		211	60	110	6,540						
May	3,360		243	43	108	6,660						
June	1,481		101	23	48.4	2,960						
July	264		22	6	8.5	524						
August	188		10	5	6.1	373						
September	201		9	5	6.7	399						
Water year 1938-39	13,745		243	4	37.7	27,260						

East Canyon Reservoir near Morgan, Utah

Location.- Staff gage, lat. $40^{\circ}55'20''$, long. $111^{\circ}35'50''$, in NE $\frac{1}{4}$ sec. 10, T. 2 N., R. 3 E., 500 feet east of East Canyon Dam and 9 miles southeast of Morgan.

Drainage area.- 144 square miles.

Records available.- October 1937 to September 1939, in reports of Geological Survey. November 1931 (revised) to September 1939, in reports of Weber River water commissioner.

Extremes.- Maximum contents during year, 26,050 acre-feet June 8 (gage height, 135.67 feet); minimum contents observed, 12,100 acre-feet Oct. 15.

1931-39: Maximum contents, 28,730 acre-feet May 25 to June 25, 1937, June 4-25, 1938 (gage height, 140.83 feet); no storage Nov. 1, 1931, Sept. 2 to Nov. 1, 1934, Sept. 11 to Oct. 18, 1937.

Remarks.- Reservoir is formed by concrete dam, which has a capacity of 28,730 acre-feet between gage heights 0.0 feet (bottom of outlet tunnel) and 140.8 feet (top of flashboards in spillway). Storage was begun in 1896 by a 58-foot rock-filled dam (capacity, 3,850 acre-feet), which was raised 25 feet in 1900 (capacity, 9,000 acre-feet), was raised 12 more feet in 1902 (capacity, 14,000 acre-feet), and later was replaced by present dam. Spillway crest is at gage height 135 feet. No dead storage. Water is used for irrigation in Davis and Weber counties.

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	25,740	23,307	-	15,820
2	12,400	-	-	-	-	-	19,220	23,380	25,790	23,147	19,200	-
3	12,240	-	15,820	-	-	-	-	-	25,870	23,037	19,090	-
4	-	-	-	-	15,680	16,390	-	-	25,920	-	-	-
5	-	12,820	-	-	-	-	19,690	-	-	22,767	-	-
6	12,200	-	-	-	-	-	-	-	25,960	22,617	-	-
7	-	-	-	15,020	-	-	-	-	26,010	22,507	-	15,120
8	-	-	-	-	-	-	20,280	24,300	26,050	-	-	-
9	-	-	-	-	-	-	-	-	25,920	22,197	-	-
10	12,110	-	14,170	-	-	-	-	24,460	25,790	22,047	18,340	-
11	-	-	-	-	15,820	16,680	-	-	25,700	-	-	-
12	-	15,180	-	-	-	-	-	-	25,580	-	-	-
13	-	-	-	-	-	-	-	-	25,460	21,697	-	14,460
14	-	-	-	15,180	-	-	-	24,740	25,360	-	-	-
15	12,100	-	-	-	-	-	21,460	-	25,260	-	-	14,430
16	-	-	-	-	-	-	-	-	25,140	-	17,690	-
17	-	-	14,400	-	-	-	-	-	-	21,187	17,600	-
18	-	-	-	-	16,010	17,150	-	24,980	24,900	-	-	-
19	-	13,480	-	-	-	-	-	-	24,780	-	-	-
20	-	-	-	-	-	-	-	25,100	24,660	20,787	-	14,350
21	-	-	-	15,350	-	-	-	-	24,540	-	-	-
22	12,310	-	-	-	-	-	22,420	-	24,460	-	-	-
23	-	-	-	-	-	-	-	-	24,340	-	-	-
24	-	-	14,650	-	-	-	-	25,340	24,220	-	16,720	-
25	-	-	-	-	16,200	19,410	-	-	24,060	-	-	-
26	-	13,600	-	-	-	-	-	25,500	23,940	-	-	-
27	-	-	-	-	-	-	-	25,540	23,780	19,877	-	-
28	12,590	-	-	15,500	-	19,720	-	-	23,580	-	-	14,240
29	-	-	-	-	-	-	23,380	-	-	-	-	-
30	-	-	-	-	-	-	-	25,660	23,420	-	-	-
31	-	-	14,600	-	-	-	-	25,700	-	-	15,910	-

East Canyon Creek near Morgan, Utah

Location.- Water-stage recorder and Lyman rectangular weir, lat. 40°55'20", long. 111°36'20", in NW¼ sec. 10, T. 2 N., R. 3 E., 2,500 feet downstream from East Canyon Dam, 2½ miles upstream from Sheep Canyon, and 9 miles southeast of Morgan.

Drainage area.- 145 square miles.

Records available.- October 1937 to September 1939, in reports of Geological Survey. October 1932 to September 1939, in reports of Weber River water commissioner.

Extremes.- Maximum daily discharge during year, 185 second-feet Mar. 29; minimum daily, 11 second-feet Oct. 29.
1931-39: Maximum daily discharge, 412 second-feet Apr. 23, 1936; minimum daily, 5 second-feet Jan. 20 to Apr. 10, Nov. 4-19, 1935.

Remarks.- Records good. No diversion between station and East Canyon Reservoir. Flow completely regulated by reservoir above station (capacity, 28,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	13	14	14	14	16	178	15	26	77	70	70
2	81	13	14	14	14	16	141	15	24	77	70	70
3	66	13	14	14	14	16	87	15	15	77	71	68
4	31	13	14	14	14	16	87	15	14	77	71	70
5	31	13	14	14	14	16	31	15	14	77	71	70
6	31	13	14	14	14	16	17	15	14	77	71	70
7	31	13	14	14	14	16	17	15	14	77	71	70
8	31	13	14	14	14	16	17	15	55	69	70	70
9	31	13	14	14	14	16	16	17	15	67	69	70
10	27	13	14	14	15	16	17	15	73	69	70	70
11	24	13	14	14	15	16	17	15	64	68	68	70
12	24	13	14	14	15	16	17	15	68	67	67	70
13	24	13	14	14	15	16	16	15	73	67	65	42
14	24	13	14	14	15	16	16	15	73	67	64	23
15	24	13	14	14	15	17	16	15	73	65	64	23
16	24	13	14	14	15	17	16	15	73	67	65	23
17	24	13	14	14	15	17	16	15	71	65	68	23
18	24	13	14	14	15	27	16	16	71	65	71	23
19	24	13	14	14	15	37	16	16	73	64	71	22
20	24	13	14	14	15	37	15	16	73	67	70	22
21	24	13	14	14	15	38	15	16	73	76	70	22
22	24	13	14	14	15	38	15	16	71	74	68	22
23	24	13	14	14	15	39	15	16	70	74	68	22
24	24	14	14	14	15	39	15	16	70	73	70	22
25	24	14	14	14	15	82	15	16	70	73	70	22
26	24	14	14	14	16	168	15	16	70	71	68	22
27	24	14	14	14	16	168	15	17	70	71	68	22
28	16	14	14	14	16	178	15	17	70	71	68	22
29	11	14	14	14	-	185	15	20	70	71	67	22
30	13	14	14	14	-	181	16	26	70	71	67	22
31	13	-	14	14	-	178	-	26	70	77	68	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	903	82	11	29.1	1,790
November.....	397	14	13	13.2	797
December.....	454	14	14	14.0	861
Calendar year 1938.....	16,678	187	7	45.7	33,070
January.....	454	14	14	14.0	861
February.....	415	16	14	14.8	823
March.....	1,670	185	16	53.9	3,310
April.....	880	178	15	29.3	1,750
May.....	509	26	15	16.4	1,010
June.....	1,732	73	14	57.7	3,440
July.....	2,151	76	64	69.4	4,270
August.....	2,130	71	64	68.7	4,220
September.....	1,259	70	22	42.0	2,500
Water year 1938-39.....	12,914	186	11	35.4	25,620

WEBER RIVER BASIN

South Fork of Ogden River near Huntsville, Utah

Location.- Water-stage recorder, lat. 41°16', long. 111°40', in SE¼ sec. 12, T. 6 N., R. 2 E., half a mile downstream from Maggie Creek, 1 mile upstream from Huntsville Mountain Canal, and 5½ miles east of Huntsville.

Drainage area.- 148 square miles.

Records available.- March 1921 to September 1939.

Average discharge.- 18 years, 108 second-feet.

Extremes.- Maximum discharge during year, 397 second-feet Apr. 30 (gage height, 2.75 feet); minimum, 25 second-feet Aug. 23.

1921-39: Maximum discharge, 1,780 second-feet May 4, 1936 (gage height, 5.45 feet), from rating curve extended above 900 second-feet; minimum discharge observed, 20 second-feet Nov. 25, 1931, July 28, 1934.

Remarks.- Records good except those for period of missing gage heights, Oct. 19 to Nov. 7, and those for periods of ice effect, Nov. 22-27, Dec. 12-14, 25-29, Jan. 7 to Mar. 7, which were computed on basis of records for Little Bear River near Paradise and weather records and are fair. Only small diversions above gage.

Rating table, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Oct. 1 to Dec. 11)

0.8	25	1.2	49	1.8	143	2.4	288
.9	28	1.4	73	2.0	186	2.6	348
1.0	35	1.6	105	2.2	234	2.8	414

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	35	48	37	38		37	219	367	82	43	38	32
2	34	45	36	39		37	247	356	78	43	35	32
3	34	45	39	39		37	317	311	64	45	34	32
4	34	46	39	39		38	342	300	66	42	34	32
5	36	46	39	39		38	326	288	65	43	34	32
6	35	42	39	39		38	266	260	66	42	34	32
7	36	40	39	-		38	259	237	66	41	34	34
8	36	39	40	-		39	247	212	66	40	35	34
9	36	39	42	-		39	288	195	73	39	32	32
10	36	41	41	-		39	237	184	66	39	32	32
11	36	40	39	-		44	209	179	63	38	32	32
12	37	39	36	-		50	214	168	58	38	32	34
13	36	40	35	-		57	242	154	57	37	32	34
14	37	39	35	-		63	252	143	57	37	32	32
15	38	39	34	-		65	247	139	56	36	32	32
16	40	39	37	-		64	260	199	57	34	31	32
17	40	38	38	-		68	282	123	60	34	30	32
18	39	37	39	-		93	242	119	64	36	30	32
19	39	36	39	-		110	271	114	59	34	31	32
20	39	37	39	-		129	285	107	57	34	30	32
21	39	35	39	-		154	308	102	55	34	31	32
22	40	35	38	-		188	332	96	50	34	32	32
23	40	34	37	-		226	345	95	50	33	30	32
24	39	35	37	-		247	364	100	51	33	31	32
25	39	37	36	-		263	329	91	48	35	31	34
26	39	36	35	-		260	297	86	46	34	31	34
27	39	37	35	-		216	282	82	45	36	32	33
28	40	39	37	-		179	294	80	45	36	32	34
29	40	38	37	-		160	336	78	44	38	33	33
30	40	38	35	-		156	358	78	45	39	35	33
31	45	-	37	-		175	-	82	-	41	35	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	1,170	43	34	37.7	2,320							
November.....	1,176	48	33	39.2	2,330							
December.....	1,161	42	33	37.5	2,300							
Calendar year 1938.....	39,612	780	31	10e	78,360							
January.....	1,116	-	-	36	2,210							
February.....	1,008	-	-	36	2,000							
March.....	3,341	263	37	108	6,650							
April.....	8,417	364	209	281	16,700							
May.....	5,035	367	78	162	9,990							
June.....	1,767	82	44	58.6	3,480							
July.....	1,165	43	33	37.5	2,310							
August.....	1,005	38	30	32.4	1,990							
September.....	977	34	32	32.6	1,940							
Water year 1938-39.....	27,326	567	-	74.9	54,200							

Pine View Reservoir near Ogden, Utah

Location.- Staff gage, lat. 41°15'20", long. 111°50'25", in NW¼ sec. 16, T. 6 N., R. 1 E., at trash rack at Pine View Dam, 7 miles northeast of Ogden. Datum of gage is at mean sea level.

Drainage area.- 310 square miles.

Records available.- November 1936 to September 1939.

Extremes.- Maximum contents during year, 41,940 acre-feet May 7 (elevation, 4,871.06 feet); minimum, 2,640 acre-feet Mar. 16 (elevation, 4,832.43 feet).
1936-39: Maximum contents, 45,370 acre-feet May 17, 1938 (elevation, 4,873.00 feet); minimum, 80 acre-feet Feb. 19, 1937 (elevation, 4,818.99 feet).

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began Nov. 16, 1936. Capacity, 41,790 acre-feet between elevations 4,818 feet (sill of trash-rack structure) and 4,871 feet (top of spillway gates) above mean sea level. Dead storage, 45 acre-feet. Figures given herein represent total contents. Capacity table furnished by Bureau of Reclamation. Water is used for irrigation on the Ogden River project. Gage is read daily at 8 a.m.; contents are as of that time.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Furnished by Bureau of Reclamation; computed from Geological Survey topographic map)

4,815	0	4,828	1,140	4,840	6,510	4,852	16,210
4,818	48	4,830	1,740	4,842	7,800	4,855	19,360
4,820	128	4,832	2,460	4,844	9,200	4,860	25,420
4,822	263	4,834	3,310	4,846	10,710	4,865	32,350
4,824	450	4,836	4,260	4,848	12,370	4,870	40,150
4,826	715	4,838	5,330	4,850	14,200	4,873	45,370

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,880	23,100	16,890	9,770	3,100	2,860	10,650	40,150	40,600	36,580	29,100	21,270
2	24,760	22,950	16,010	9,500	2,890	2,890	11,240	40,490	40,560	36,350	29,800	21,050
3	24,660	22,730	15,800	9,280	2,660	2,890	12,750	40,710	40,490	36,170	29,600	20,820
4	24,570	22,560	15,750	9,000	2,710	2,890	14,730	40,920	40,440	35,940	29,390	20,580
5	24,470	22,540	15,690	8,790	2,710	2,900	16,630	41,060	40,380	35,660	29,160	20,430
6	24,370	22,430	15,560	8,570	2,720	2,880	18,320	41,570	40,300	35,460	27,890	20,320
7	24,280	22,120	15,330	8,360	2,740	2,870	19,650	41,940	40,220	35,260	27,630	20,210
8	24,200	21,760	15,090	8,140	2,770	2,870	20,720	41,840	40,150	35,120	27,400	20,100
9	24,120	21,570	14,850	7,940	2,760	2,860	21,880	41,840	40,100	34,890	27,130	20,010
10	24,080	21,380	14,610	7,740	2,790	2,880	22,610	41,660	40,030	34,650	26,820	19,840
11	24,070	21,190	14,390	7,560	2,820	2,900	23,480	41,670	39,950	34,430	26,550	19,690
12	24,070	20,990	14,120	7,360	2,830	2,820	24,170	41,690	39,860	34,250	26,260	19,640
13	24,080	20,760	13,890	7,160	2,860	2,710	25,090	41,910	39,820	33,950	25,580	19,590
14	24,100	20,550	13,660	6,940	2,870	2,650	26,060	41,870	39,720	33,650	25,740	19,540
15	24,100	20,330	13,430	6,740	2,930	2,650	27,040	41,860	39,460	33,360	25,480	19,510
16	24,110	20,150	13,200	6,540	2,930	2,640	27,960	41,840	39,210	33,090	25,260	19,480
17	24,150	19,970	12,990	6,350	2,910	2,670	28,900	41,840	38,950	32,840	25,040	19,450
18	24,370	19,750	12,770	6,190	2,890	2,800	29,740	41,860	38,840	32,550	24,790	19,420
19	24,340	19,500	12,550	5,980	2,870	3,030	30,510	41,840	38,670	32,260	24,500	19,390
20	24,260	19,300	12,340	5,800	2,850	3,230	31,210	41,840	38,590	32,000	24,170	19,350
21	24,210	19,080	12,160	5,570	2,840	3,590	32,120	41,770	38,510	31,700	23,930	19,180
22	24,130	18,810	11,970	5,350	2,820	3,990	33,090	41,670	38,410	31,470	23,660	19,930
23	24,120	18,540	11,770	5,110	2,800	4,700	34,220	41,430	38,250	31,210	23,380	18,680
24	24,120	18,280	11,580	4,860	2,810	5,490	35,610	41,300	38,090	30,940	23,120	18,320
25	24,110	18,030	11,380	4,660	2,830	6,520	36,970	41,160	37,930	30,720	22,960	18,020
26	24,100	17,790	11,150	4,450	2,850	7,510	37,830	41,080	37,720	30,480	22,610	17,720
27	24,080	17,510	10,920	4,200	2,860	8,470	38,510	41,040	37,400	30,130	22,360	17,660
28	24,070	17,190	10,710	4,000	2,860	9,140	38,790	41,010	37,260	29,890	22,160	17,600
29	23,730	16,870	10,500	3,770	-	9,500	39,130	40,960	36,990	29,620	21,960	17,540
30	23,500	16,580	10,270	3,570	-	9,780	39,560	40,880	36,700	29,450	21,760	17,490
31	23,300	-	10,030	3,320	-	10,650	-	40,770	-	29,270	21,530	-

Elevation, and contents, water year October 1938 to September 1939

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1.....	4,859.59	24,880	-1,780
Nov. 1.....	4,858.20	23,100	-6,520
Dec. 1.....	4,852.07	16,890	-6,510
Calendar year 1938.....	-	-	-980
Jan. 1.....	4,844.77	9,770	-6,670
Feb. 1.....	4,835.52	3,100	-240
Mar. 1.....	4,832.98	2,860	17,790
Apr. 1.....	4,845.02	10,650	129,500
May 1.....	4,870.00	40,150	1450
June 1.....	4,870.27	40,600	-4,050
July 1.....	4,867.77	36,560	-7,450
Aug. 1.....	4,862.71	29,100	-7,830
Sept. 1.....	4,856.68	21,270	-3,850
Oct. 1.....	4,853.17	17,440	-
Water year 1938-39.....	-	-	-7,440

Note.- Gage read at 8 a.m.

Ogden River below Pine View Dam, near Ogden, Utah

Location.— Water-stage recorder, lat. $41^{\circ}15'17''$, long. $111^{\circ}50'47''$, in NE*SW $\frac{1}{4}$ sec. 16, T. 8 N., R. 1 E., 1,500 feet downstream from Wheeler Creek, 2,000 feet downstream from Pine View Dam and $8\frac{1}{2}$ miles northeast of Ogden.

Drainage area.— 321 square miles.

Records available.— October 1937 to September 1939. 1895-96, January 1904 to October 1912, October 1931 to September 1937 records at same site, including flow diverted above station by Pine View pipe line, published as "Ogden River near Ogden, Utah."

Extremes.— Maximum discharge during year, 730 second-feet Apr. 1 (gage height, 4.20 feet); minimum, 1 second-foot Dec. 12 to Mar. 16.
1937-39: Maximum discharge, 1,260 second-feet Apr. 25, 26, 1938 (gage height, 5.30 feet); minimum, less than 1 second-foot at times when reservoir gates were closed.

Remarks.— Records good. Discharge for period of ice effect, Jan. 3 to Mar. 11, computed on basis of weekly gage readings and observer's notes. Flow regulated by Pine View Reservoir (capacity, 41,000 acre-feet). Records do not include flow of Pine View pipe line, which diverts water above station for use in irrigation and power development. Diversions for irrigation and municipal supply above Pine View Reservoir.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.	
1	8	5	2	2	1	1	476	496	24	25	29	21	
2	8	4	2	2	1	1	213	496	21	24	24	21	
3	7	4	5	2	1	1	66	486	19	24	24	21	
4	7	7	3	2	1	1	47	490	19	24	22	21	
5	7	5	2	2	1	1	40	556	18	24	12	21	
6	7	4	2	2	1	1	42	222	18	24	27	21	
7	6	3	2	2	1	1	69	306	17	24	25	21	
8	3	3	2	2	1	1	28	375	16	27	24	16	
9	3	3	2	1	1	1	150	291	17	28	28	16	
10	3	3	2	1	1	1	158	220	16	26	28	16	
11	3	3	2	1	1	1	24	200	15	27	29	16	
12	3	2	2	1	1	2	25	235	14	26	28	11	
13	3	3	1	1	1	2	26	214	14	25	28	6	
14	3	2	2	1	1	2	24	173	14	26	28	6	
15	4	3	2	1	1	2	23	129	25	28	28	6	
16	5	3	2	1	1	2	21	96	28	33	28	6	
17	5	3	2	1	1	4	20	88	32	33	27	6	
18	4	3	2	1	1	5	21	87	31	32	27	6	
19	4	3	2	1	1	1	134	18	65	32	32	26	6
20	4	3	2	1	1	217	16	41	31	32	26	6	
21	4	3	2	1	1	306	17	26	24	28	26	6	
22	4	3	2	1	1	402	19	24	28	29	26	5	
23	4	2	2	1	1	438	24	25	28	29	26	5	
24	4	2	2	1	1	420	34	21	28	28	27	5	
25	4	2	2	1	1	417	47	21	28	28	28	6	
26	4	2	2	1	1	438	217	20	27	28	27	5	
27	4	2	2	1	1	456	281	19	26	29	27	5	
28	4	2	2	1	1	490	385	19	26	30	22	5	
29	4	2	2	1	1	513	388	20	26	30	21	5	
30	4	2	2	1	1	521	453	21	25	30	21	5	
31	5	-	2	1	-	506	-	24	-	30	22	-	
Month													
October	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet								
October	142	8	3	4.6	282								
November	91	7	2	3.0	180								
December	65	5	1	2.0	125								
Calendar year 1938	38,260	1,240	1	105	75,890								
January	39	2	1	1.3	77								
February	28	1	1	1.0	56								
March	5,288	521	1	171	10,490								
April	3,342	476	16	111	6,630								
May	5,284	490	19	170	10,480								
June	687	32	14	22.9	1,360								
July	863	33	24	27.8	1,710								
August	791	29	12	25.5	1,570								
September	322	21	5	10.7	639								
Water year 1938-39	16,940	521	1	46.4	33,600								

Jordan River at Narrows, near Lehi, Utah

Location.- Water-stage recorders, lat. 40°26'40", long. 111°55'20", in SE¼ sec. 26, T. 4 S., R. 1 W., at Narrows, 5½ miles northwest of Lehi.

Drainage area.- 2,610 square miles.

Records available.- October 1934 to September 1939. May to December 1904 and July 1913 to September 1934 at outlet of Utah Lake, 7½ miles upstream.

Average discharge.- 26 years (1913-39), 381 second-feet.

Extremes.- Maximum daily discharge during year, 747 second-feet May 21; minimum, 7 second-feet Mar. 1-10.

1913-39: Maximum daily discharge, 1,370 second-feet June 9, 1922 (gate height, 7.78 feet, at former site and datum).

Remarks.- Records excellent. They give the combined flow of Jordan River, Utah & Salt Lake canal, and East Jordan canal. Flow completely regulated by gates and pumps at outlet of Utah Lake, pumps at Pelican Point, and diversion dam at Narrows.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	528	15	27	10	10	7	8	656	414	742	685	648
2	530	15	27	10	10	7	8	649	418	740	670	612
3	545	15	27	10	10	7	8	668	420	736	664	600
4	535	15	27	10	10	7	8	686	429	732	661	639
5	535	15	27	10	10	7	8	680	427	722	661	645
6	533	16	27	10	10	7	8	675	488	720	687	644
7	505	16	28	10	10	7	8	674	605	741	685	608
8	505	16	28	10	10	7	8	675	672	736	684	626
9	501	16	28	9	10	7	8	680	666	735	680	630
10	498	16	28	9	10	7	8	697	672	732	671	610
11	483	16	28	10	10	8	8	745	660	721	674	594
12	475	16	28	10	10	8	8	747	658	716	676	589
13	477	18	27	10	10	8	8	719	672	716	689	528
14	483	20	27	10	10	8	8	736	693	731	681	485
15	157	20	27	10	10	8	8	743	712	719	671	473
16	24	20	27	10	10	8	8	471	669	711	668	496
17	21	22	27	9	10	8	8	732	615	702	661	512
18	21	24	27	9	10	8	8	745	706	717	660	516
19	21	24	26	10	10	8	106	727	705	719	675	515
20	21	24	26	10	10	8	213	746	709	713	672	539
21	20	24	26	10	10	8	316	747	706	711	663	558
22	19	24	26	10	10	8	341	707	713	714	647	528
23	17	24	26	10	10	8	352	706	714	714	649	512
24	16	26	26	10	12	8	497	711	691	721	669	512
25	16	27	26	10	13	8	582	697	718	711	660	507
26	15	27	22	10	11	8	599	685	732	713	658	498
27	15	27	16	10	10	8	590	697	728	694	662	509
28	15	27	16	10	10	8	653	667	736	702	648	511
29	15	28	16	10	-	8	672	666	735	686	641	501
30	15	28	15	10	10	8	667	666	734	698	655	495
31	15	-	12	10	-	8	-	570	-	708	649	-
Month												
October.....	7,576		545		15		244		15,030			
November.....	621		28		15		20.7		1,230			
December.....	771		28		12		24.9		1,530			
Calendar year 1938.....	108,992		757		5		299		216,200			
January.....	306		10		9		9.9		607			
February.....	286		13		10		10.2		567			
March.....	238		8		7		7.7		472			
April.....	5,712		672		8		190		11,330			
May.....	21,620		747		570		697		42,880			
June.....	19,214		756		414		640		38,110			
July.....	22,271		742		686		718		44,170			
August.....	20,674		689		641		667		41,010			
September.....	16,620		648		473		554		32,970			
Water year 1938-39.....	115,909		747		7		318		229,900			

Spanish Fork at Thistle, Utah

Location.- Water-stage recorder, lat. 40°00', long. 111°30', in SW $\frac{1}{4}$ sec. 26, T. 9 S., R. 4 E., at Thistle, 600 feet downstream from confluence of Soldier Fork and Thistle Creek to form Spanish Fork and 2 $\frac{1}{2}$ miles upstream from Diamond Fork. Prior to Oct. 8, 1938, staff gage used at same site and datum.

Drainage area.- 940 square miles.

Records available.- January 1908 to September 1925 and October 1936 to September 1939 in reports of Geological Survey. January 1933 to September 1939, in reports of Spanish Fork water commissioner.

Average discharge.- 23 years (1908-25, 1933-39), 101 second-feet.

Extremes.- Maximum discharge during year, 556 second-feet Mar. 17; minimum, 17 second-feet Aug. 31, Sept. 1.
1908-25, 1933-39: Maximum discharge observed, 1,250 second-feet May 26, 1922; minimum observed, 10 second-feet Sept. 17, 22, 25, Oct. 25, 1934.

Remarks.- Records good except those for periods of ice effect, Jan. 24-27, Feb. 2, 3, 10, 12, 17, 18, 20-23, and those for periods of missing gage heights, Oct. 2-7, Oct. 30 to Nov. 2, Nov. 27-30, Mar. 26-31, which were computed on basis of records for station at Castilla and are fair. Small diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.
1	35	48	42	45	39	44	110	155	97	31	24	17
2	35	50	44	46	26	44	121	166	77	29	22	18
3	35	46	48	48	34	48	134	162	71	29	21	18
4	36	50	61	46	41	48	136	166	68	27	21	19
5	36	51	56	44	44	44	136	166	62	27	21	20
6	36	41	53	50	44	42	124	155	61	27	35	22
7	36	40	53	43	42	51	121	149	61	26	26	31
8	36	42	57	42	43	65	126	136	56	26	24	24
9	38	45	57	44	39	85	136	126	55	25	24	23
10	41	49	56	46	32	88	121	123	55	24	21	24
11	40	46	52	48	45	110	115	130	51	25	22	26
12	40	37	46	44	36	151	115	126	46	24	23	30
13	39	34	44	44	45	202	115	115	44	23	22	26
14	38	35	40	49	48	153	121	113	41	23	21	24
15	41	37	48	43	46	140	117	110	36	22	20	26
16	41	42	48	46	44	275	108	106	36	22	20	27
17	41	45	48	44	38	301	102	102	38	22	19	28
18	38	39	46	48	38	332	104	94	42	22	19	28
19	37	40	53	44	44	293	106	88	44	20	19	27
20	36	43	52	46	40	229	102	87	43	21	20	26
21	36	39	53	49	40	184	106	83	39	22	19	26
22	39	35	52	49	39	170	111	77	37	20	19	28
23	39	34	45	46	42	168	119	72	36	20	19	27
24	40	36	50	34	46	162	124	78	36	21	18	31
25	39	35	42	34	48	159	119	72	36	21	18	30
26	38	36	43	36	45	140	108	70	36	21	27	30
27	38	37	41	40	44	110	106	72	35	21	24	31
28	39	39	44	50	44	105	113	70	33	22	29	44
29	39	40	44	46	-	100	126	65	32	35	18	36
30	40	42	48	49	-	90	142	103	31	36	18	34
31	44	-	46	46	-	95	-	134	-	27	17	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,187	44	35	38.3	2,350
November.....	1,235	51	34	41.1	2,450
December.....	1,514	61	40	48.8	3,000
Calendar year 1938.....	36,678	577	28	100	72,750
January.....	1,391	50	34	44.9	2,760
February.....	1,154	48	26	41.2	2,290
March.....	4,228	332	42	136	8,390
April.....	3,546	142	102	116	7,030
May.....	3,473	166	65	112	6,890
June.....	1,435	97	31	47.8	2,860
July.....	761	36	20	24.5	1,510
August.....	670	35	17	21.6	1,330
September.....	801	44	17	26.7	1,590
Water year 1938-39.....	21,393	332	17	58.6	42,440

Peak discharge.- Mar. 15 (8 p.m.) 431 sec.-ft.; Mar. 16 (6:30 p.m.) 532 sec.-ft.; Mar. 17 (7:30 p.m.) 556 sec.-ft.; Mar. 18 (8:30 p.m.) 468 sec.-ft.; May 31 (2 p.m.) 417 sec.-ft.; July 29 (8 p.m.) 224 sec.-ft.

Spanish Fork at Castilla, Utah

Location.- Water-stage recorder, lat. 40°02', long. 111°32', in SE¼ sec. 12, T. 9 S., R. 3 E., 600 feet upstream from outlet of Cold Springs, 1 mile northwest of Castilla railroad station, 1½ miles upstream from diversion dam of Bureau of Reclamation, and 2 miles downstream from Diamond Fork.

Drainage-area.- 670 square miles.

Records available.- May 1919 to September 1925 and October 1936 to September 1939 in reports of Geological Survey. January 1933 to September 1939, in reports of Spanish Fork water commissioner.

Average discharge.- 12 years (1919-25, 1933-39), 226 second-feet.

Extremes.- Maximum discharge during year, 905 second-feet May 31 (stage height, 6.80 feet); minimum, 31 second-feet Feb. 2.

1919-25, 1933-39: Maximum daily discharge, 1,520 second-feet May 22, 1920; minimum discharge, 25 second-feet Feb. 18, 1938.

Remarks.- Records good. Several small diversions above station for irrigation. Flow is materially increased by water diverted from Colorado River Basin by tunnel from Strawberry Reservoir (capacity, 250,000 acre-feet) into Diamond Fork of Spanish Fork for irrigation of lands in Jordan River Basin.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	186	78	67	68	63	70	186	355	126	507	161	184
2	165	81	66	74	44	84	199	355	102	507	155	190
3	149	75	71	74	56	74	219	402	93	479	155	152
4	130	80	93	74	66	75	228	416	84	379	173	186
5	165	87	87	68	68	70	233	431	92	405	190	173
6	208	68	62	75	67	62	214	428	130	446	214	175
7	205	64	81	68	67	77	201	413	219	473	159	190
8	212	68	96	62	68	88	205	431	258	461	153	134
9	192	74	58	73	63	102	230	446	270	418	155	132
10	163	77	68	73	52	116	212	473	289	388	167	140
11	147	77	86	73	67	132	201	504	291	402	217	161
12	153	67	68	70	59	177	197	482	326	425	235	165
13	159	59	62	68	74	233	203	413	351	399	224	141
14	138	59	63	74	71	194	205	382	382	360	221	123
15	96	66	78	66	73	175	201	399	388	305	252	117
16	71	74	80	70	71	306	188	431	390	289	278	121
17	74	81	74	67	58	366	177	428	385	273	313	126
18	67	84	68	73	60	386	175	379	192	263	326	125
19	64	67	77	70	71	360	224	351	159	289	316	117
20	64	74	74	73	64	313	245	357	143	294	300	114
21	63	71	77	74	66	260	250	375	140	300	305	121
22	64	59	77	74	60	255	268	351	136	273	289	134
23	66	55	68	71	64	263	278	360	189	230	281	138
24	66	53	75	53	74	268	300	343	278	203	266	126
25	67	55	64	54	74	258	302	285	310	224	291	130
26	67	57	66	57	71	235	300	214	340	230	308	132
27	66	58	58	66	66	203	294	205	379	219	260	145
28	64	60	63	73	67	182	289	182	455	228	240	153
29	64	63	70	71	-	180	316	177	515	245	214	121
30	66	66	73	71	-	167	340	253	532	240	190	110
31	73	-	70	73	-	171	-	325	-	177	182	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	3,534		212	63	114	7,010						
November.....	2,037		87	53	67.9	4,040						
December.....	2,309		93	58	74.5	4,580						
Calendar year 1938.....	77,387		682	45	212	153,500						
January.....	2,150		75	53	69.4	4,260						
February.....	1,528		74	44	55.2	3,520						
March.....	5,874		388	62	189	11,650						
April.....	7,080		340	175	236	14,040						
May.....	11,307		504	177	365	22,430						
June.....	7,925		532	84	264	15,720						
July.....	10,354		507	177	334	20,540						
August.....	7,210		326	153	233	14,300						
September.....	4,304		190	110	143	8,540						
Water year 1938-39.....	65,910		532	44	161	130,700						

Peak discharge.- Mar. 15 (10 p.m.) 479 sec.-ft.; Mar. 16 (8 p.m.) 601 sec.-ft.; Mar. 17 (9 p.m.) 627 sec.-ft.; Mar. 18 (9 p.m.) 569 sec.-ft.; May 30 (6 p.m.) 894 sec.-ft.; May 31 (2 p.m.) 905 sec.-ft.

Spanish Fork near Lake Shore, Utah

Location.- Water-stage recorder, lat. 40°10', long. 111°44', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 7 S., R. 2 E., 400 feet downstream from bridge, 1 mile upstream from mouth, and 2.5 miles north of Lake Shore. Datum of gage raised 4.0 feet on Oct. 17, 1938.

Drainage area.- 700 square miles.

Records available.- January 1938 to September 1939. December 1903 to July 1907 and March 1909 to September 1925 at site 3 miles upstream; records equivalent.

Average discharge.- 18 years (1904-6, 1909-19, 1920-25, 1938-39), 103 second-feet.

Extremes.- 1938: Maximum discharge during period, 437 second-feet May 18 (gage height, 8.18 feet, present datum); practically no flow during latter part of irrigation season.

1938-39: Maximum discharge during year, 449 second-feet Mar. 18 (gage height, 9.16 feet); practically no flow during latter part of irrigation season.

1903-7, 1909-25, 1938-39: Maximum discharge observed, 1,100 second-feet May 7, 1922; practically no flow during latter part of irrigation season for most years.

Remarks.- Records good except those for periods of missing gage heights and those below 25 second-feet, which are fair. Flow affected above station by many diversions for irrigation and by operation of hydroelectric power plant. During the latter part of the irrigation season only waste and return waters pass the gage. Station below all diversions. Several discharge measurements furnished by Board of Canal Presidents.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				-	96	126	136	113	-	-	-	-
2				-	97	145	125	145	*3.0	-	*2.0	-
3				-	96	292	136	176	-	-	-	-
4				-	105	258	149	110	-	-	-	-
5				-	104	170	210	113	-	-	-	-
6				-	80	124	229	104	*1.5	*1.0	-	*0.5
7				-	86	127	168	77	-	-	-	-
8				-	104	125	164	†60	-	-	-	-
9				-	103	129	169	†45	-	*1.0	*1.0	-
10				-	103	140	185	37	-	-	-	-
11				-	116	†62	182	†15	-	*1.0	-	-
12				-	118	204	225	†8	-	-	-	-
13				-	98	264	236	59	*2.0	-	-	*.5
14				-	90	273	217	131	-	-	-	-
15				-	99	195	196	102	*.2	-	-	-
16				-	99	178	223	151	*1.5	-	*1.0	-
17				-	91	225	259	242	-	-	-	-
18				-	78	164	303	289	-	*1.0	-	-
19				-	89	160	351	419	-	-	-	-
20				-	94	189	364	388	*1.0	-	-	*.2
21				-	88	228	360	245	-	-	-	-
22				-	98	159	349	271	-	*1.5	-	-
23				-	88	165	340	210	-	-	*1.0	-
24				-	†75	94	155	275	165	-	-	-
25				-	†60	90	145	265	100	-	-	-
26				-	†60	83	†160	191	91	-	*2.5	-
27				-	†70	82	†190	†140	78	*.8	-	*.2
28				-	†80	103	173	†100	52	-	*5.0	-
29				-	†85	-	145	†70	†25	-	-	-
30				-	91	-	125	45	†4	-	-	*.5
31				-	92	-	131	-	*2	-	-	-

*Field estimate.

†Gage-height record missing; discharge computed on basis of records for station at Castilla.

JORDAN RIVER BASIN

Discharge, in second-feet, of Spanish Fork near Lake Shore, Utah, 1938-1939--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	††	59	79	81	73	84	202	1	14	-	-	-
2	††	71	76	86	†66	80	218	2	3	-	-	-
3	††	66	81	87	†68	92	238	2	3	-	*0.3	-
4	††	66	96	86	†74	98	246	2	†1	-	-	-
5	††	80	104	81	†76	87	250	2	1	-	-	*0.5
6	††	69	96	84	†76	80	234	2	1	*0.5	-	-
7	††	59	89	84	76	93	222	1	-	*.5	-	-
8	††	64	91	79	74	100	220	1	-	-	*.4	-
9	††	69	94	77	72	117	240	1	-	-	-	-
10	††	79	90	92	†62	161	227	2	-	-	-	-
11	††	78	90	78	†76	137	198	2	-	-	-	-
12	††	76	79	77	†70	177	113	2	-	*.3	-	*1.0
13	††	70	73	76	†82	230	84	2	-	*.3	-	-
14	††	74	68	82	79	266	67	1	-	-	*.3	-
15	††	74	76	79	82	166	30	2	-	-	-	-
16	††	81	82	84	81	210	12	2	-	-	-	-
17	†	90	76	83	†68	326	10	2	-	-	-	-
18	††	79	76	86	†70	369	6	2	-	-	-	-
19	††	77	79	82	†82	360	6	1	-	*.3	-	-
20	††	78	81	79	79	336	4	1	-	*.3	-	-
21	†31	81	84	82	78	289	2	2	-	-	-	*.2
22	†31	72	85	81	74	251	2	2	-	-	*.3	-
23	†31	68	82	80	78	288	2	1	-	-	-	-
24	†31	64	80	74	88	286	4	1	-	-	-	-
25	†31	59	88	84	88	283	3	1	-	*.3	-	-
26	34	63	80	67	84	269	2	1	-	-	-	*.2
27	36	64	76	79	80	239	2	1	-	-	-	*.3
28	41	66	78	86	80	211	2	1	*.6	-	-	-
29	42	66	81	86	-	209	1	1	-	-	*.2	-
30	40	73	82	80	-	191	1	2	-	-	-	-
31	47	-	83	82	-	191	-	30	-	-	-	-

Month	Second-foot-days	Maximum	Minimum	Mean†	Run-off in acre-feet
January 23-31, 1938.....	701	92	60	77.9	1,390
February.....	2,662	118	78	95.1	5,280
March.....	5,426	292	124	175	10,760
April.....	6,586	364	46	213	12,670
May.....	4,006	419	2	179	7,960
June.....	60.0	-	-	12.0	119
July.....	46.5	-	-	11.5	92
August.....	31.0	-	-	11.0	61
September.....	16.0	-	-	10.5	30
The period.....	-	-	-	-	38,350
October 1938.....	487	47	1	16.7	966
November.....	2,135	90	59	71.2	4,230
December.....	2,573	104	68	83.0	5,100
Calendar year.....	-	-	-	-	-
January 1939.....	2,505	92	64	80.8	4,970
February.....	2,126	88	56	75.9	4,220
March.....	6,249	369	80	202	12,390
April.....	2,846	250	1	94.9	5,640
May.....	76	30	1	2.5	161
June.....	30	14	-	11.0	60
July.....	16	-	-	10.5	32
August.....	16	-	-	10.5	32
September.....	16	-	-	10.5	30
Water year 1938-39.....	19,074	369	-	62.3	87,820

*Field estimate.

†Gage-height record missing; discharge computed on basis of records for station at Castilla.

‡Estimated.

Provo River at Vivian Park, Utah

Location.- Water-stage recorder, lat. 40°22', long. 111°34', in NW¼ sec. 25, T. 5 S., R. 3 E., half a mile downstream from North Fork, 3,500 feet northeast of Vivian Park, and three-quarters of a mile upstream from South Fork.

Drainage area.- 600 square miles.

Records available.- November 1911 to September 1939.

Average discharge.- 27 years (1912-39), 357 second-feet.

Extremes.- Maximum discharge during year, 806 second-feet Mar. 23 (gage height, 3.90 feet); minimum, 126 second-feet Sept. 2.

1911-39: Maximum discharge observed, 3,180 second-feet July 11, 1921; minimum discharge, 49 second-feet July 17, 1934.

Remarks.- Records excellent except those for period of ice effect, Nov. 25-29, which were interpolated and are fair. Station is below diversions for irrigation in Heber Valley and above those in vicinity of Provo. Flow slightly regulated at headwaters by small lakes that serve as reservoirs. Records include flow of Weber-Provo diversion canal. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.
1	182	289	257	228	222	209	405	457	544	252	159	156
2	182	286	257	233	206	206	415	486	453	226	152	150
3	182	274	269	226	238	222	425	540	405	222	150	129
4	169	305	307	222	231	219	439	596	373	215	148	135
5	187	326	302	219	228	215	439	701	346	217	148	138
6	184	276	279	228	228	202	422	679	358	224	152	140
7	189	259	271	211	226	226	399	653	373	222	157	146
8	191	259	276	211	228	226	392	600	346	215	155	145
9	195	271	279	215	226	224	412	600	349	213	155	140
10	199	281	279	219	217	219	408	646	349	217	153	146
11	199	266	271	228	226	224	389	688	337	206	155	148
12	196	266	240	231	224	235	376	641	346	197	153	141
13	193	259	228	219	226	250	379	548	346	195	150	136
14	193	271	224	231	228	271	405	498	343	193	146	135
15	215	276	250	219	237	259	419	540	335	169	138	135
16	233	289	269	228	226	299	429	588	310	187	136	133
17	252	292	252	217	209	361	415	552	307	182	138	132
18	238	271	240	228	217	395	379	540	329	178	135	132
19	264	271	252	228	231	446	379	509	323	176	138	132
20	266	279	247	242	222	502	376	468	326	172	140	133
21	259	276	252	231	224	548	321	422	312	163	141	136
22	259	264	247	219	215	584	302	405	284	153	138	133
23	247	262	231	213	219	637	294	370	266	152	138	135
24	240	260	259	204	226	560	335	379	269	150	135	135
25	240	258	235	206	224	617	321	386	259	150	133	135
26	238	256	240	211	217	564	274	349	259	153	133	135
27	235	254	213	226	215	529	269	335	264	155	136	133
28	238	252	231	240	215	468	281	329	269	157	140	140
29	251	250	235	226	-	422	349	355	274	170	148	141
30	228	247	242	233	-	405	468	543	274	163	141	141
31	276	-	228	233	-	395	-	432	-	163	136	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October.....						6,819	276	182	220	13,530		
November.....						8,165	326	247	272	16,200		
December.....						7,853	307	213	255	15,580		
Calendar year 1938.....						135,640	1,630	177	366	265,100		
January.....						6,929	240	204	224	13,740		
February.....						6,251	238	206	223	12,400		
March.....						11,139	637	202	359	22,090		
April.....						11,316	468	269	377	22,440		
May.....						15,595	701	329	503	30,930		
June.....						9,928	544	259	331	19,690		
July.....						5,827	252	150	168	11,560		
August.....						4,477	159	133	144	8,830		
September.....						4,104	148	129	137	8,140		
Water year 1938-39.....						98,403	701	129	270	195,200		

Peak discharge.- Mar. 23 (3:30 a.m.) 806 sec.-ft.; Mar. 25 (4 a.m.) 736 sec.-ft.; May 5 (3:30 p.m.) 780 sec.-ft.

Provo River at Provo, Utah

Location.- Water-stage recorder, lat. 40°14'15", long. 111°41'45", in NE 1/4 sec. 3, T. 7 S., R. 2 E., 600 feet downstream from bridge on State Highway 114, 2 miles west of Provo, and 2 miles upstream from mouth. Prior to Nov. 10, 1938, water-stage recorder at site 450 feet upstream at different datum.

Records available.- June 1933 to September 1934, November 1938 to September 1939. January 1937 to November 1938, at site 450 feet upstream, above one small diversion. May 1905 to June 1905, at site three-quarters of a mile upstream, above three small diversions. Records equivalent when adjusted for small diversions.

Extremes.- Maximum daily discharge during year, 668 second-feet Mar. 23; practically no flow June 24-29, July 16, 17. 1903-5, 1933-34, 1937-39: Maximum discharge observed, 1,620 second-feet May 27, 1904; practically no flow during several periods.

Remarks.- Records good except those for periods of missing gage heights and those below 10 second-feet, which are fair. Station is below all diversions. At times, entire flow is diverted above station for irrigation. Records furnished by Bureau of Reclamation. Factory race diverts water above station into Provo Bay, an arm of Utah Lake; Provo River water commissioner furnished following record of this diverted flow for 1938-39:

Month	Run-off in acre-feet	Month	Run-off in acre-feet
October.....	415	May.....	142
November.....	1,760	June.....	60
December.....	2,050	July.....	0
January.....	2,080	August.....	0
February.....	1,900	September.....	0
March.....	2,170		
April.....	1,670	Water year 1938-39.....	12,250

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*6	186	213	213	209	200	400	11	32	1	2	2
2	*7	195	213	218	182	200	417	10	10	1	2	2
3	*7	184	240	215	205	213	423	23	8	1	2	1
4	*8	1187	288	211	224	211	437	25	7	1	2	1
5	*14	1190	308	211	220	211	437	87	7	1	2	1
6	*14	1193	258	218	215	198	420	111	8	2	3	2
7	*15	1196	238	203	220	215	339	66	5	1	3	4
8	*15	1200	238	190	222	229	367	45	4	1	2	5
9	*18	1204	238	200	216	228	367	35	4	1	2	4
10	*25	209	238	198	180	222	353	45	3	1	3	7
11	*25	222	238	211	211	222	315	83	3	1	2	9
12	*25	222	207	213	209	233	285	99	3	1	2	8
13	*19	209	192	205	215	242	266	38	2	1	3	8
14	*15	211	188	211	213	268	280	78	1	1	3	5
15	*25	215	200	205	216	201	310	28	1	1	2	7
16	*100	229	218	211	222	270	315	36	1	0	1	7
17	179	240	213	203	196	359	282	29	1	0	1	5
18	177	224	205	213	198	400	231	21	1	1	1	8
19	184	218	207	213	222	449	200	14	1	1	2	5
20	188	220	209	228	209	492	147	8	2	1	2	4
21	182	224	213	222	203	549	33	5	1	1	2	3
22	165	215	209	208	192	586	13	4	1	1	2	3
23	158	209	198	200	196	668	13	2	1	1	2	3
24	156	203	215	188	215	622	19	4	0	1	2	3
25	158	203	244	184	209	619	19	8	0	1	2	4
26	158	205	222	190	209	576	39	5	0	2	2	4
27	160	196	182	207	203	509	38	4	0	2	2	3
28	161	200	198	222	207	480	24	4	0	2	2	5
29	155	200	218	222	-	426	11	4	0	2	2	5
30	158	200	222	215	-	394	10	4	1	1	2	5
31	165	-	218	220	-	391	-	7	1	2	2	6

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	2,842	188	6	91.7	5,640
November.....	6,209	240	184	207	12,320
December.....	6,888	308	182	222	13,360
Calendar year 1938.....	70,903	1,220	2	194	140,600
January.....	6,467	226	184	209	12,830
February.....	5,840	224	180	209	11,580
March.....	11,083	668	198	358	21,980
April.....	6,860	437	10	229	13,610
May.....	942	111	2	30.4	1,870
June.....	108	32	0	3.6	214
July.....	35	2	0	1.1	69
August.....	64	3	1	2.1	127
September.....	135	9	1	4.5	268
Water year 1938-39.....	47,473	668	0	130	94,170

*Gage height missing; discharge computed on basis of seven field estimates and one discharge measurement.
 †Gage height missing; discharge interpolated.

Weber-Provo diversion canal near Woodland, Utah

Location.- Water-stage recorder and Parshall rating flume, lat. $40^{\circ}36'40''$, long. $111^{\circ}18'15''$, in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 2 S., R. 6 E., 100 feet upstream from outlet to Provo River and $4\frac{1}{2}$ miles northwest of Woodland.

Records available.- October 1931 to September 1939.

Extremes.- Maximum daily discharge during year, 122 second-feet May 29; no water diverted from Weber River for several months.

1931-39: Maximum daily discharge, 152 second-feet June 14, 15, 1933; no water diverted from Weber River for several months during each year.

Remarks.- Records good. Canal diverts water from Weber River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 1 S., R. 6 E., to Provo River for irrigation of lands along Provo and Jordan Rivers. Figures given herein represent quantity of water reaching Provo River during periods when water was diverted from Weber River. Not all of water diverted from Weber River reaches Provo River because of evaporation, transpiration, and seepage losses. No water being diverted from Weber River on days for which no figures are given. Records of daily discharge furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	-	115	20		
2							-	28	114	12		
3							-	78	114	-		
4							-	113	116	-		
5							-	115	115	-		
6							-	115	114	-		
7							-	114	110	-		
8							-	112	109	-		
9							-	116	109	-		
10							-	118	113	-		
11							-	116	112	-		
12							-	116	113	-		
13							-	115	113	-		
14							12	116	113	-		
15							25	119	111	-		
16							25	119	102	-		
17							24	119	106	-		
18							24	118	112	-		
19							25	121	105	-		
20							26	121	84	-		
21								15	120	63	-	
22								-	119	40	-	
23								-	118	36	-	
24								-	118	22	-	
25								-	117	22	-	
26								-	115	33	-	
27								-	117	36	-	
28								-	119	36	-	
29								-	122	31	-	
30								-	121	12	-	
31								-	121	-	-	
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	-	-	-	-	-	-						
November.....	-	-	-	-	-	-						
December.....	-	-	-	-	-	-						
Calendar year 1938.....	2,855	119	-	-	7.5	5,670						
January.....	-	-	-	-	-	-						
February.....	-	-	-	-	-	-						
March.....	-	-	-	-	-	-						
April.....	176	26	-	-	5.9	349						
May.....	3,596	122	-	-	110	6,740						
June.....	2,531	116	12	-	84.4	5,020						
July.....	32	20	0	-	1.0	65						
August.....	-	-	-	-	-	-						
September.....	-	-	-	-	-	-						
Water year 1938-39.....	6,135	122	0	-	16.8	12,170						

South Fork of Provo River at Vivian Park, Utah

Location.- Water-stage recorder and Parshall flume, lat. 40°21', long. 111°34', in SE¼ sec. 26, T. 5 S., R. 3 E., a quarter of a mile southeast of Vivian Park and half a mile upstream from confluence with Provo River.

Drainage area.- 30 square miles.

Records available.- November 1911 to September 1939.

Average discharge.- 27 years (1912-39), 30.3 second-feet.

Extremes.- Maximum discharge during year, 54 second-feet July 29 (gage height, 1.36 feet); minimum daily discharge, 13 second-feet May 8, 9.

1911-39: Maximum discharge observed, 123 second-feet May 27, 1922; minimum discharge, 13 second-feet several times in 1934, 1935, and on Apr. 2, 1937.

Remarks.- Records good. Station below all diversions. Flow regulated by diversions above station. Records collected in cooperation with Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	33	33	29	26	26	26	27	25	25	21	25	23
2	33	31	28	26	26	26	27	24	24	21	25	24
3	33	31	30	28	28	26	27	24	25	20	24	23
4	33	36	30	26	25	26	27	24	25	22	23	24
5	33	33	29	26	26	26	27	23	25	22	23	23
6	33	32	28	26	26	26	26	23	25	22	23	24
7	33	30	28	26	26	26	26	21	25	22	23	24
8	32	30	28	25	26	26	25	18	24	22	22	25
9	34	31	28	25	26	27	25	18	23	22	22	25
10	34	31	29	25	27	27	25	20	23	22	22	26
11	32	31	28	25	27	27	25	21	22	21	22	26
12	32	31	28	25	27	27	25	21	22	21	22	26
13	33	30	28	26	27	27	25	21	23	22	22	27
14	33	30	28	25	27	27	26	22	24	22	22	27
15	34	30	28	26	26	27	26	22	23	22	22	25
16	34	30	28	26	26	27	25	23	23	21	23	25
17	34	30	28	27	27	27	23	24	24	21	23	24
18	34	30	27	27	26	27	23	24	23	21	22	26
19	33	30	27	26	27	26	23	24	23	21	22	26
20	33	29	27	26	26	27	24	24	23	21	21	26
21	33	30	27	26	26	28	24	24	23	20	22	27
22	33	29	27	25	26	28	25	24	22	21	22	27
23	32	29	27	25	26	28	25	25	22	21	22	27
24	32	29	27	25	26	28	26	25	21	21	23	28
25	32	29	27	26	26	28	26	22	22	22	23	28
26	32	28	27	26	26	28	26	22	22	22	24	28
27	32	29	27	26	26	28	26	23	22	23	23	28
28	31	28	27	26	26	28	26	21	21	25	23	28
29	31	28	26	26	-	28	26	22	21	27	24	28
30	30	28	26	27	-	27	26	24	21	28	23	28
31	33	-	26	27	-	27	-	25	-	26	23	-
Month												
October.....	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	1,014		34	30	32.7	2,010						
November.....	906		36	28	30.2	1,800						
December.....	858		30	26	27.7	1,700						
Calendar year 1938.....	10,810		58	23	29.6	21,430						
January.....	802		27	25	25.9	1,590						
February.....	735		27	25	26.1	1,450						
March.....	839		28	26	27.1	1,669						
April.....	763		27	23	25.4	1,510						
May.....	699		25	18	22.5	1,390						
June.....	691		25	21	23.0	1,370						
July.....	685		28	20	22.1	1,360						
August.....	705		25	21	22.7	1,400						
September.....	777		28	23	25.9	1,540						
Water year 1938-39.....	9,471		36	18	25.9	18,780						

Sevier River at Hatch, Utah

Location.- Water-stage recorder, lat. 37°39'00", long. 112°25'30", in S $\frac{1}{2}$ NW $\frac{1}{4}$ sec. 28, T. 36 S., R. 5 W., 100 feet downstream from bridge, 0.2 mile east of Hatch, and 2.8 miles downstream from Mammoth Creek. Prior to Sept. 30, 1928, water-stage recorder at same site at different datum.

Drainage area.- 260 square miles.

Records available.- June 1911 to September 1928, June to September 1939.

Extremes.- Maximum discharge during period, 835 second-feet Sept. 6 (gage height, 3.20 feet), from rating curve extended above 200 second-feet; minimum, 51 second-feet Aug. 24, Sept. 3.

1911-28, 1939: Maximum discharge (not determined), occurred May 25, 1914, owing to failure of Hatchtown Dam; maximum discharge recorded, 1,490 second-feet May 26, 1922 (gage height, 5.25 feet, former datum); minimum discharge, 10 second-feet on several days in 1912 when water was being stored in Hatchtown Reservoir.

Remarks.- Records good. Two small diversions from Mammoth Creek above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									-	65	58	55
2									-	65	57	54
3									-	65	57	54
4									-	65	57	58
5									-	65	58	62
6									-	64	59	235
7									-	64	58	222
8									-	64	58	131
9									-	63	58	129
10									-	63	58	114
11									-	64	57	112
12									-	62	57	241
13									-	60	56	436
14									-	60	56	219
15									-	59	55	203
16									-	58	54	175
17									-	58	53	149
18									-	58	53	129
19									-	57	54	109
20									73	57	54	98
21									72	56	54	93
22									70	56	53	89
23									68	58	54	86
24									68	58	53	84
25									69	58	52	89
26									68	59	55	95
27									68	59	60	97
28									68	59	57	93
29									66	58	58	93
30									66	58	61	90
31									-	58	57	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....												
November.....												
December.....												
Calendar year 1938.....												
January.....	-		-	-	-	-						
February.....	-		-	-	-	-						
March.....	-		-	-	-	-						
April.....	-		-	-	-	-						
May.....	-		-	-	-	-						
June 20-30.....	756		73	66	68.7	1,500						
July.....	1,873		65	58	60.4	3,720						
August.....	1,741		61	52	56.2	3,450						
September.....	3,894		456	54	130	7,720						
The period.....	-		-	-	-	16,390						

Sevier River near Kingston, Utah

Location.- Water-stage recorder and concrete control, lat. 38°12', long. 112°12', in NE¼ sec. 16, T. 30 S., R. 3 W., 1,000 feet upstream from bridge on State Highway 22, 1 mile west of Kingston, and 2 miles upstream from East Fork.

Drainage area.- 1,110 square miles.

Records available.- June 1914 to September 1939.

Average discharge.- 25 years, 149 second-feet.

Extremes.- Maximum discharge during year, 1,000 second-feet Sept. 7 (gauge height, 3.03 feet), from rating curve extended above 600 second-feet; minimum, 7 second-feet July 20.

1914-39: Maximum discharge, about 3,000 second-feet (including flow of 360 second-feet, estimated, in overflow channel bypassing station) Mar. 4, 1938 (gauge height, 5.20 feet), from rating curve extended above 600 second-feet; minimum daily discharge, 5 second-feet June 16-20, 1931.

Remarks.- Records good except those for period of ice effect, Nov. 25 to Mar. 11, those for period of missing gage heights, Nov. 9-13 (computed on basis of weekly staff gage reading and weather records), and those for periods of missing gage heights, Oct. 25-29, Nov. 4, 5 (interpolated), all of which are fair. Many diversions above station; none between station and mouth of East Fork.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	155	-	*126	-	120	198	110	22	13	12	13
2	89	144	-	-	-	120	217	112	20	13	12	12
3	101	144	-	-	-	120	213	123	20	13	12	12
4	99	144	-	-	-	120	220	129	20	11	12	13
5	87	144	*170	-	-	120	240	147	21	12	12	20
6	80	144	-	-	-	*120	220	147	18	12	13	38
7	84	167	-	-	-	120	206	129	17	11	13	69
8	112	177	-	-	*138	125	209	129	16	8	12	252
9	150	175	-	-	-	130	228	99	15	8	12	180
10	150	170	-	-	-	130	246	84	15	10	12	180
11	147	165	-	-	-	135	232	75	14	10	11	228
12	144	160	-	-	-	144	217	73	14	10	12	387
13	144	155	-	-	-	160	236	61	14	11	12	670
14	144	156	*138	-	-	180	252	50	14	11	12	506
15	150	166	-	*132	-	163	236	57	14	11	12	307
16	163	163	-	-	-	163	191	73	14	11	12	252
17	180	163	-	-	-	198	156	34	14	11	11	228
18	180	166	-	-	-	232	160	34	13	11	10	217
19	177	163	-	-	-	256	160	32	13	11	10	194
20	173	170	-	-	-	268	129	29	13	10	10	180
21	167	163	*153	-	-	307	135	27	13	10	10	177
22	156	153	-	-	-	358	156	22	13	10	11	167
23	153	141	-	*135	-	353	180	22	13	10	11	160
24	153	135	-	-	-	307	206	24	13	10	12	153
25	150	145	-	-	-	330	180	25	13	10	13	147
26	147	155	*153	-	*116	294	180	24	14	11	13	144
27	144	167	-	*129	-	252	150	22	14	11	13	173
28	141	*165	-	-	-	256	129	20	13	11	13	150
29	138	165	-	*116	-	236	101	22	13	12	13	150
30	135	165	-	-	-	224	91	22	13	13	13	147
31	135	-	*123	-	-	194	-	22	-	13	13	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	4,262		180	80	137	3,450						
November.....	4,695		177	135	156	9,310						
December.....	4,605		-	-	155	9,530						
Calendar year 1938.....	66,616		1,500	14	163	132,100						
January.....	4,030		-	-	130	7,990						
February.....	3,360		-	-	120	6,560						
March.....	6,215		358	120	200	12,330						
April.....	5,656		252	91	189	11,220						
May.....	1,979		147	20	63.8	3,930						
June.....	453		22	13	15.1	899						
July.....	339		13	8	10.9	672						
August.....	369		13	10	11.9	732						
September.....	6,125		670	12	204	12,150						
Water year 1938-39.....	42,288		670	8	116	84,670						

Peak discharge.- Sept. 7 (11 a.m.) 1,000 sec.-ft.; Sept. 10 (10:30 p.m.) 387 sec.-ft.; Sept. 11 (12 p.m.) 372 sec.-ft.; Sept. 12 (6 p.m.) 593 sec.-ft.; Sept. 13 (9 p.m.) 796 sec.-ft.

*Determined from staff-gage reading.

Plute Reservoir near Marysville, Utah

Location.- Staff gage, lat. 38°20', long. 112°12', in NW¼ sec. 3, T. 29 S., R. 3 W., at Plute Dam, 9 miles south of Marysville. Zero of gage is 5,900.8 feet above mean sea level.

Drainage area.- 2,440 square miles.

Records available.- March 1914 to September 1939.

Extremes.- Maximum contents during year, 64,570 acre-feet Apr. 13-15 (gage height, 72.1 feet); no storage Oct. 5-7.

1914-39: Maximum contents, 82,300 acre-feet May 23, 1922 (gage height, 76.4 feet), original capacity table; no storage at times during several years.

Remarks.- Reservoir is formed by earth-fill dam; storage began in summer of 1910. Capacity, 84,750 acre-feet between gage heights 16 feet (approximate bottom of reservoir) and 80 feet (top of flashboards in spillway). Spillway crest is at gage height 70.2 feet. No dead storage. Water is used for irrigation. Gage read about 4 p.m. daily; contents are as of that time.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Furnished by Sevier River water commissioners, computed from capacity survey made in November 1938)

16	0	40	12,510	65	49,810
20	220	45	15,180	70	59,880
25	1,560	50	24,850	75	71,500
30	4,100	55	32,250	80	84,750
35	7,790	60	40,620		

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Jul.	Aug.	Sept.
1	356	54	11,070	28,320	44,610	50,200	60,760	55,710	36,630	24,140	17,070	10,180
2	176	54	11,470	28,910	44,610	50,390	60,980	54,910	36,630	23,580	17,680	9,800
3	35	68	11,990	29,500	44,790	50,580	61,200	54,110	36,790	23,030	18,160	9,430
4	9	61	12,400	30,110	44,960	50,780	61,640	53,120	36,960	22,470	18,660	9,080
5	0	54	12,940	30,710	45,160	50,970	62,080	52,130	36,790	21,920	18,910	9,250
6	0	54	13,470	31,170	45,340	51,180	62,530	51,160	36,480	21,580	19,280	9,990
7	0	185	14,020	31,650	45,530	51,350	62,990	50,580	35,950	21,120	19,800	10,870
8	35	745	14,580	32,100	45,710	51,550	63,440	50,000	35,290	20,580	20,190	11,780
9	99	1,070	15,010	32,570	45,900	51,740	63,880	49,430	34,640	19,930	20,580	12,510
10	96	1,600	15,450	33,200	46,080	51,940	63,890	48,870	33,850	19,280	20,710	13,370
11	96	2,150	15,910	33,830	46,450	52,130	64,110	48,120	33,200	18,780	20,710	14,230
12	82	2,720	16,370	34,480	46,820	52,330	64,340	47,000	32,570	18,280	20,580	15,120
13	61	3,140	16,830	34,960	47,190	52,530	64,570	46,060	31,790	17,800	20,190	16,020
14	47	3,670	17,310	35,460	47,580	52,720	64,570	45,530	31,020	17,430	19,800	16,830
15	54	4,100	17,800	35,950	47,960	52,920	64,570	45,160	30,260	17,070	19,280	17,450
16	54	4,700	18,280	36,460	47,740	53,320	64,340	44,790	29,650	16,720	18,660	18,040
17	75	5,120	18,780	36,960	47,950	52,710	64,340	44,420	29,500	16,370	17,800	18,540
18	105	5,550	19,280	37,470	48,120	54,110	64,110	44,060	29,200	16,020	16,950	18,780
19	121	5,920	19,930	38,160	48,310	54,510	63,890	43,690	29,200	15,680	16,140	19,280
20	154	6,370	20,580	38,680	48,680	54,910	63,440	42,970	29,050	15,340	15,340	19,670
21	165	6,910	21,250	39,390	49,060	55,510	62,980	42,480	28,910	15,010	14,670	20,060
22	165	7,390	22,060	39,910	49,250	55,120	62,310	41,860	28,760	14,990	14,020	20,380
23	154	7,790	22,890	40,440	49,430	56,750	61,420	41,340	28,460	15,230	13,470	20,580
24	143	8,210	23,720	40,980	49,620	57,340	60,540	40,800	28,170	15,570	12,940	20,190
25	132	8,550	24,430	41,520	49,820	57,750	59,880	40,270	27,880	15,910	12,620	19,800
26	110	8,900	24,990	42,060	49,810	58,600	59,240	39,560	27,580	16,020	12,410	19,410
27	96	9,340	25,560	42,420	50,000	59,030	58,600	38,850	27,150	16,140	12,200	19,040
28	82	9,800	26,140	42,970	50,200	59,450	57,960	38,330	26,570	16,020	12,100	18,680
29	61	10,190	26,850	43,510	-	59,890	57,340	37,820	25,850	16,020	11,570	18,160
30	31	10,670	27,300	44,060	-	60,320	56,530	37,300	24,990	16,140	11,170	17,680
31	64	-	27,730	44,420	-	60,540	-	36,960	-	16,600	10,670	-

Monthly gage height and contents, water year October 1938 to September 1939

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	22.0	*610	-
Oct. 31.....	18.2	54	-566
Nov. 30.....	38.2	10,670	+10,620
Dec. 31.....	52.0	27,730	+17,060
Calendar year 1938.....	-	-	*-14,870
Jan. 31.....	62.1	44,420	+16,690
Feb. 28.....	65.2	50,200	+6,780
Mar. 31.....	70.3	60,540	+10,340
Apr. 30.....	68.4	56,530	-4,010
May 31.....	57.9	36,960	-19,570
June 30.....	50.1	24,990	-11,970
July 31.....	43.7	16,600	-8,390
Aug. 31.....	38.2	10,670	-6,930
Sept. 30.....	44.6	17,680	+7,010
Water year 1938-39.....	-	-	+17,070

*Computed on basis of new capacity table.

Sevier River below Piute Dam, near Marysvale, Utah

Location.- Water-stage recorder, lat. 38°20', long. 112°11', in NE $\frac{1}{4}$ sec. 34 (revised), T. 28 S., R. 3 W., three-quarters of a mile downstream from Piute Dam and 8 miles south of Marysvale.

Drainage area.- 2,440 square miles.

Records available.- May 1911 to September 1939.

Average discharge.- 27 years (1912-39), 253 second-feet.

Extremes (regulated).- Maximum discharge during year, 684 second-feet June 28, 29, 30 (gage height, 3.08 feet); minimum daily discharge, 1 second-foot (estimated) Nov. 25 to Dec. 13.

1911-39: Maximum discharge, 2,600 second-feet May 23, 24, 1922; practically no flow at times when reservoir gates are closed.

Remarks.- Records good except those for period when reservoir gates were closed, Nov. 25 to Dec. 13 (estimated), and those for periods when recorder was not operating, Jan. 1-6, Jan. 25 to Feb. 3, Feb. 17 to Mar. 18 (computed from staff gage readings), all of which are fair. One small diversion between gage and Piute Reservoir. Flow regulated by operation of gates in dam.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.					
1	300	239	1	28	22	68	79	527	222	666	61	333					
2	274	239	1	28	22	68	78	527	190	663	60	279					
3	249	239	1	28	22	68	78	540	132	621	87	262					
4	214	239	1	28	22	70	78	639	148	543	107	259					
5	190	256	1	28	22	68	74	635	222	533	126	174					
6	186	239	1	28	22	68	4	628	339	533	71	101					
7	188	193	1	28	22	70	3	580	441	550	19	13					
8	217	36	1	27	22	70	50	517	429	576	22	7					
9	244	6	1	28	22	70	65	501	485	621	79	7					
10	252	3	1	30	22	70	86	507	498	632	172	7					
11	254	2	1	31	21	70	72	553	491	625	277	7					
12	252	12	1	27	21	70	89	569	488	621	362	7					
13	249	36	1	26	21	70	236	463	559	621	429	7					
14	242	31	8	24	21	70	236	394	639	569	429	7					
15	242	19	12	24	21	70	236	370	646	511	498	7					
16	239	20	15	24	21	72	236	353	576	479	563	11					
17	244	36	20	23	21	72	236	255	368	523	597	107					
18	254	36	27	23	21	72	259	287	246	540	597	132					
19	252	36	31	23	21	72	303	303	226	527	556	130					
20	256	36	21	23	21	72	347	339	511	517	559	130					
21	259	38	21	23	21	72	447	353	359	441	527	159					
22	256	40	21	23	46	72	441	414	379	259	485	174					
23	254	102	21	23	74	72	566	426	414	157	388	174					
24	254	20	53	23	68	72	569	441	411	152	308	259					
25	254	1	155	23	68	72	576	435	405	174	254	339					
26	252	1	91	23	68	72	460	429	405	262	234	342					
27	252	1	32	23	68	72	495	438	546	306	209	339					
28	249	1	26	23	68	72	495	435	670	319	232	339					
29	242	1	19	23	-	72	533	396	694	308	328	339					
30	239	1	20	23	-	76	527	347	677	209	347	322					
31	239	-	23	23	-	78	-	325	-	109	342	-					
Month													Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....													7,548	300	186	2.5	14,970
November.....													2,137	239	1	71.2	4,240
December.....													609	155	1	19.6	1,210
Calendar year 1938.....													97,806	821	1	2.3	194,000
January.....													782	31	23	25.2	1,550
February.....													911	74	21	32.5	1,810
March.....													2,202	78	68	71.0	4,370
April.....													7,923	676	3	2.4	15,730
May.....													13,956	659	285	4.7	27,680
June.....													12,629	684	132	4.21	25,050
July.....													14,167	666	109	4.7	28,100
August.....													9,355	597	19	3.2	18,560
September.....													4,773	342	7	1.59	9,470
Water year 1938-39.....													77,002	684	1	2.11	152,700

SEVIER LAKE BASIN

Sevier River above Clear Creek, near Sevier, Utah

Location.- Water-stage recorder, lat. 38°34'19", long. 112°15'24", in N $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 5, T. 26 S., R. 4 W., 0.6 mile upstream from bridge on U. S. highway 89, 0.7 mile upstream from Clear Creek, and 1 mile south of Sevier.

Drainage area.- 2,700 square miles.

Records available.- April to September 1939. May 1911 to Nov. 15, 1916, at site 0.8 mile downstream. Nov. 16, 1916, to September 1929, at site 0.8 mile downstream and 150 feet downstream from Clear Creek; records equivalent by deducting those of Clear Creek.

Extremes.- Maximum discharge during period, 664 second-feet June 16 (gage height, 3.04 feet); minimum, 40 second-feet Sept. 15-17.

1911-29: Maximum discharge, 2,800 second-feet (estimated) during last week in May 1922; minimum, 10 second-feet Nov. 27, 1919 (including flow of Clear Creek).

Remarks.- Records good. Many diversions above station for irrigation. Flow affected by storage in Piute and Otter Creek Reservoirs.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							-	553	397	655	139	372
2							-	557	312	650	100	363
3							-	548	243	650	93	318
4							-	585	221	601	113	295
5							-	641	256	587	130	271
6							-	637	312	544	146	194
7							-	637	456	539	106	138
8							41	592	469	553	59	62
9							94	553	487	570	60	51
10							90	535	526	605	123	49
11							91	548	531	615	214	49
12							95	592	526	610	308	48
13							161	588	539	615	413	46
14							243	482	610	601	460	42
15							247	452	650	561	478	40
16							247	426	646	509	522	40
17							250	384	548	500	557	48
18							250	351	394	557	566	128
19							285	339	293	557	570	139
20							339	376	293	544	570	141
21							401	397	384	535	570	143
22							430	435	401	426	553	182
23							495	460	435	260	522	185
24							570	504	452	199	430	196
25							553	500	452	196	335	308
26							539	465	452	243	274	351
27							443	469	473	308	257	355
28							495	473	610	335	236	359
29							522	478	655	343	282	363
30							544	452	660	297	351	359
31							-	439	-	230	372	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....												
November.....												
December.....												
Calendar year												
January.....	-	-	-	-	-	-	-					
February.....	-	-	-	-	-	-	-					
March.....	-	-	-	-	-	-	-					
April 8-30.....	7,425	570	41	323	14,730							
May.....	15,446	641	339	498	30,640							
June.....	13,653	660	221	455	27,080							
July.....	14,965	655	196	483	29,680							
August.....	9,909	570	59	320	19,650							
September.....	5,626	372	40	188	11,160							
The period.....	-	-	-	-	-	132,900						

Sevier River near Sigurd, Utah

(Formerly published as Sevier River near Vermilion, Utah)

Location.- Water-stage recorder, lat. 38°52', long. 111°57', in SW¼ sec. 19, T. 22 S., R. 1 W., 200 feet downstream from bridge, half a mile downstream from Rockyford Dam, 2 miles northeast of Sigurd (Vermilion), and 5 miles upstream from Lost Creek.

Drainage area.- 3,340 square miles.

Records available.- July to September 1912, July 1914 to September 1939.

Average discharge.- 25 years (1914-39), 116 second-feet.

Extremes.- Maximum discharge during year, 372 second-feet Oct. 28 (gage height, 2.82 feet); practically no flow May 13, 14, when reservoir gates were closed.

1914-39: Maximum discharge, 2,400 second-feet May 30, 1922 (gage height, about 8.1 feet, former datum), from rating curve extended above 600 second-feet; practically no flow (seepage only) when Rockyford gates are closed.

Remarks.- Records good except those for period of missing gage heights, Dec. 24 to Jan. 7, WHICH were computed on basis of records for station near Gunnison and are fair. Entire flow usually diverted during low-water season; flow past station at such a time represents seepage and return flow from canals. Flow also regulated by dams and reservoirs above station.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used July 30 to Aug. 4)

0.6	0	1.0	11	1.4	44	2.0	145
.7	1	1.1	17	1.5	57	2.3	216
.8	3	1.2	24	1.6	71	2.6	301
.9	6	1.3	33	1.8	105	3.0	434

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	177	128	155	139	167	167	2	3	1	36	8
2	65	181	132	155	124	158	163	2	11	1	33	15
3	74	193	137	170	139	160	165	3	62	1	33	11
4	77	216	147	165	143	174	172	3	81	1	15	5
5	74	224	145	165	145	174	184	2	58	1	5	4
6	73	230	145	160	143	174	160	1	14	1	5	6
7	73	238	149	160	145	177	160	1	1	1	10	23
8	74	236	149	156	145	184	152	1	1	1	12	40
9	81	280	149	158	149	201	79	1	1	1	14	47
10	82	191	154	154	132	227	42	1	1	1	14	48
11	92	152	156	147	145	227	76	1	1	1	3	50
12	126	139	154	149	147	230	91	1	1	1	1	56
13	167	134	147	145	141	224	87	0	1	1	1	57
14	193	132	132	147	145	209	33	0	1	1	2	40
15	206	134	128	145	143	203	27	27	1	1	1	33
16	235	141	134	141	149	196	39	71	1	2	1	21
17	254	147	141	141	139	196	55	20	1	2	1	17
18	257	141	143	134	137	193	71	1	1	2	1	22
19	254	137	141	141	147	196	68	1	1	2	1	29
20	254	143	141	145	149	193	61	1	1	2	1	28
21	257	166	145	143	143	199	16	1	1	2	1	27
22	271	147	147	143	139	213	2	1	1	2	1	28
23	280	139	141	145	141	219	1	1	1	2	1	23
24	277	132	145	141	154	224	1	1	1	2	1	25
25	268	160	135	134	172	213	1	1	1	2	1	31
26	251	154	155	154	177	120	2	1	1	3	1	32
27	230	152	190	159	174	137	2	1	1	2	1	32
28	263	147	185	145	167	199	2	1	1	1	1	32
29	254	134	170	145	-	206	4	1	1	1	3	32
30	206	124	160	145	-	181	2	1	1	16	5	32
31	186	-	155	143	-	189	-	2	-	29	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5,533	280	65	178	10,970
November.....	5,061	286	124	169	10,040
December.....	4,580	190	128	148	9,080
Calendar year 1938.....	55,894	466	1	153	110,800
January.....	4,592	170	134	148	9,110
February.....	4,113	177	124	147	8,160
March.....	5,953	230	120	192	11,530
April.....	2,095	184	1	69.8	4,160
May.....	152	71	0	4.9	301
June.....	253	81	1	8.4	502
July.....	87	29	1	2.8	173
August.....	210	36	1	6.8	417
September.....	357	57	4	23.6	1,700
Water year 1938-39.....	33,496	286	0	91.8	66,440

Sevier River below San Pitch River, near Gunnison, Utah

Location.- Water-stage recorder, lat. 39°09', long. 111°52', in NE¼ sec. 14, T. 19 S., R. 1 W., 1,000 feet downstream from San Pitch River and 3 miles west of Gunnison. Gage datum lowered 0.36 foot on Oct. 28, 1938.

Drainage area.- 4,880 square miles.

Records available.- October 1917 to September 1939.

Average discharge.- 22 years, 222 second-feet.

Extremes.- Maximum discharge during year, 454 second-feet Mar. 24 (gage height, 2.80 feet); minimum, 31 second-feet July 20, 21.
1917-39: Maximum discharge, 2,620 second-feet June 1, 1922 (gage height, 5.68 feet, present datum); minimum daily discharge, 8 second-feet July 13-17, Sept. 6, 1934.

Remarks.- Records excellent except those for periods of missing gage heights, Nov. 18-29, Sept. 7, 8, 28-30, which were computed on basis of records for station near Sigurd and are good. Flow regulated above station by operation of reservoirs and by many diversions for irrigation. Most of flow diverted above station during irrigation season.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used May 1 to June 4, Aug. 3-29)

0.9	26	1.4	100	2.4	346
1.0	36	1.6	146	2.6	399
1.1	48	1.8	197	2.8	454
1.2	63	2.0	248		
1.3	80	2.2	297		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	194	356	258	271	268	283	351	136	109	37	118	62
2	176	326	266	269	250	285	339	127	122	37	122	58
3	174	333	271	271	256	292	331	136	156	36	100	57
4	176	344	283	285	268	304	321	122	189	36	98	56
5	176	354	295	278	263	311	316	127	207	37	94	52
6	171	372	297	280	260	304	314	115	176	41	90	80
7	184	372	292	275	266	311	295	68	127	41	88	100
8	184	377	292	273	270	314	280	77	107	42	78	120
9	200	413	290	268	268	359	280	78	104	42	73	134
10	202	418	290	266	268	399	207	80	96	37	73	141
11	202	356	292	283	263	415	161	88	70	34	52	148
12	207	304	285	256	266	421	184	88	57	34	44	164
13	231	280	271	253	268	432	200	86	54	34	40	161
14	268	268	268	263	256	437	215	80	43	34	36	154
15	295	283	253	271	260	386	181	82	42	34	35	139
16	309	292	268	280	256	364	151	107	42	34	36	122
17	341	290	268	260	256	359	154	144	42	34	35	118
18	351	290	260	260	268	359	184	111	43	33	38	115
19	354	285	263	258	256	377	146	88	43	33	35	113
20	356	280	268	266	268	394	151	70	43	32	36	109
21	359	285	273	273	268	394	146	65	43	32	44	109
22	367	295	278	278	263	399	122	60	42	33	50	109
23	372	280	266	275	256	415	102	88	43	34	56	111
24	372	275	256	263	263	448	98	56	43	34	77	104
25	362	265	258	268	263	451	115	57	52	34	80	100
26	354	290	250	248	297	440	92	57	77	36	70	86
27	344	286	268	256	295	351	92	60	75	47	100	88
28	333	275	307	268	287	319	94	60	75	52	88	90
29	380	270	299	271	-	372	92	61	60	56	109	90
30	351	256	285	268	-	375	118	68	38	82	73	90
31	333	-	275	273	-	356	-	66	-	86	66	-
Month												
October	Second-foot-days											
October	8,678											
November	9,329											
December	8,535											
Calendar year 1938	96,905											
Month	Maximum	Minimum	Mean	Run-off in acre-feet								
October	380	171	280	17,210								
November	415	256	311	18,500								
December	307	250	275	16,930								
Calendar year 1938	657	53	265	192,200								
January	285	248	267	16,420								
February	7,426	297	250	14,730								
March	11,406	451	283	22,620								
April	5,802	351	92	11,510								
May	2,694	144	56	5,340								
June	2,420	207	38	4,800								
July	1,248	86	32	2,480								
August	2,130	122	35	4,220								
September	3,190	164	52	6,310								
Water year 1938-39	71,124	451	32	141,100								

Sevier Bridge Reservoir near Juab, Utah

Location.- Staff gage, lat. 39°22', long. 112°02', in NW¼ sec. 1, T. 17 S., R. 2 W., at Sevier Bridge Dam, 13 miles southwest of Juab.

Drainage area.- 5,120 square miles.

Records available.- January 1914 to September 1939.

Extremes.- Maximum contents during year, 155,600 acre-feet Apr. 11-13 (gage height, 71.0 feet); minimum, 39,540 acre-feet Sept. 4-6 (gage height, 40.0 feet).
1914-39: Maximum contents, 251,000 acre-feet Apr. 19, 20, 1922 (gage height, 80.0 feet), from former capacity table; no storage at times during 1927-28, 1930-36.

Remarks.- Reservoir is formed by earth-fill dam; storage began about 1904 by a 30-foot dam that was ultimately raised to 90 feet by June 1916. Capacity, 236,000 acre-feet between elevation 6 feet (approximate bottom of outlet tunnel) and 80.0 feet (top of flash-board on spillway) above mean sea level. No dead storage. Figures given herein represent usable contents. Capacity table furnished by Consolidated Sevier Bridge Reservoir Co.; computed from capacity surveys made in 1931. Water is used for irrigation on project lands. Gage read to half-tenths about 9 a.m. daily; contents are as of that time.

Capacity table (gage height, in feet, and contents, in acre-feet)

(Furnished by Consolidated Sevier Bridge Reservoir Co.; computed from capacity surveys made in 1931)

6	0	25	12,830	45	51,390	65	117,700
10	246	30	20,200	50	64,580	70	148,400
15	2,840	35	29,150	55	79,240	75	137,600
20	7,200	40	39,540	60	95,630	80	236,000

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53,160	68,540	85,840	99,860	114,900	128,800	150,900	138,900	95,630	84,250	50,890	39,760
2	53,670	69,280	86,320	100,300	115,400	129,500	151,200	136,900	95,280	83,300	51,140	39,760
3	53,960	69,980	86,950	100,900	116,000	130,100	152,000	135,900	94,750	81,730	51,390	39,760
4	54,150	70,560	87,130	101,300	116,500	130,700	152,700	133,900	94,220	80,480	51,640	39,540
5	54,560	71,040	87,460	101,900	117,000	131,300	153,000	131,900	93,690	78,930	51,890	39,540
6	54,560	72,120	88,100	102,500	117,400	131,900	153,500	129,800	93,340	77,100	52,150	39,540
7	54,690	72,610	88,430	103,000	117,900	132,500	154,000	128,000	92,980	74,990	52,400	39,990
8	54,690	73,200	88,920	103,400	118,500	132,800	154,400	126,000	92,630	73,200	52,650	40,440
9	54,820	73,790	89,420	103,800	119,000	133,400	154,800	124,500	92,100	71,440	52,910	40,670
10	54,950	74,380	89,920	104,400	119,500	134,400	155,200	122,500	91,770	69,120	52,910	40,890
11	55,210	75,140	90,430	104,900	120,100	135,000	155,600	120,400	91,100	67,390	52,650	41,120
12	55,340	75,590	91,100	105,300	120,600	135,900	156,000	118,200	90,430	65,150	52,400	41,570
13	55,470	76,190	91,600	105,800	121,000	136,900	156,500	116,400	89,750	62,930	51,890	41,800
14	55,730	76,490	91,940	106,200	121,500	137,600	156,900	114,100	88,750	61,570	51,140	41,800
15	56,420	77,100	92,100	106,600	122,000	138,500	156,900	112,600	87,780	60,220	50,650	42,030
16	57,160	77,410	92,630	107,100	122,500	139,500	154,100	111,000	87,130	59,140	50,150	42,030
17	57,690	78,020	93,160	107,500	122,800	140,200	153,800	109,600	85,840	58,080	49,410	42,030
18	58,350	78,560	93,610	108,000	123,100	140,800	153,400	108,400	85,200	57,290	48,910	42,140
19	59,140	80,170	94,040	108,400	123,700	141,500	152,700	107,100	84,570	56,240	48,190	42,250
20	59,820	80,790	94,400	108,900	124,200	142,200	152,000	105,800	84,250	55,470	47,700	42,490
21	60,360	81,420	94,930	109,600	124,800	142,900	151,600	104,400	84,250	54,690	46,730	42,490
22	61,030	81,880	95,460	110,000	125,400	143,500	150,200	102,600	84,250	54,180	46,020	42,730
23	61,840	82,350	96,020	110,600	126,000	144,200	149,100	101,100	84,570	53,670	45,070	42,840
24	62,660	82,820	96,590	111,000	126,200	144,900	148,400	99,860	84,570	52,910	44,120	43,190
25	63,480	83,300	96,930	111,400	126,500	146,000	147,700	98,880	84,570	52,400	43,190	43,650
26	64,580	83,780	97,320	112,000	127,400	146,600	146,300	97,920	84,570	52,020	42,260	43,890
27	65,150	84,280	97,730	112,400	128,000	147,400	145,600	97,540	84,570	51,640	41,800	44,120
28	65,850	84,780	98,110	112,600	128,300	148,000	144,200	97,150	84,880	51,140	41,350	44,590
29	66,410	85,200	98,690	113,100	-	148,700	142,200	95,630	84,670	50,890	40,890	44,830
30	67,110	85,520	99,070	113,800	-	149,400	140,200	95,630	84,570	50,770	40,670	44,830
31	67,970	-	99,450	114,400	-	150,200	-	95,630	-	50,770	40,220	-

*Based on inflow and outflow records.

Monthly gage height and contents, water year October 1938 to September 1939

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1.....	45.7	53,160	+15,380
Nov. 1.....	51.4	68,540	+17,500
Dec. 1.....	57.1	85,840	+14,020
Calendar year 1938.....	-	-	+58,740
Jan. 1.....	61.1	99,860	+15,040
Feb. 1.....	64.45	114,900	+15,900
Mar. 1.....	67.0	128,800	+22,100
Apr. 1.....	70.35	150,900	-12,000
May 1.....	68.6	138,900	-43,270
June 1.....	60.0	95,630	-11,580
July 1.....	56.6	84,250	-33,560
Aug. 1.....	44.8	50,890	-11,130
Sept. 1.....	40.1	39,760	+5,310
Oct. 1.....	42.4	45,070	-
Water year 1938-39.....	-	-	-8,090

Note.- Gage read about 9 a.m.

Sevier River near Juab, Utah

Location.- Water-stage recorder, lat. 39°22', long. 112°02', in NW¼ sec. 1, T. 17 S., R. 2 W., 300 feet downstream from Sevier Bridge Dam and 11 miles (revised) southwest of Juab.

Drainage area.- 5,120 square miles.

Records available.- September 1911 to September 1939.

Average discharge.- 28 years, 258 second-feet.

Extremes.- Maximum discharge during year, 1,190 second-feet May 11 (gage height, 5.23 feet, former site and datum); minimum daily discharge, 2 second-feet Nov. 17 to Dec. 31. 1911-39: Maximum discharge, 2,140 second-feet June 2, 1922 (gage height, 8.50 feet, former site and datum); practically no flow when reservoir gates are closed.

Remarks.- Records good except those for period of missing gage heights (when reservoir gates were closed, seepage water only), Nov. 21 to Apr. 10, which were computed on basis of one discharge measurement and observer's notes and are fair. Record obtained at former site a quarter of a mile downstream, from Apr. 11 to June 30, when water was being released from spillway gates and bypassing the upper site. No diversion between this station and station near Gunnison. Flow regulated by Sevier Bridge Reservoir (capacity, 236,000 acre-feet).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	9					4	899	310	775	3	134
2	9	9					4	955	332	660	3	68
3	9	9					4	1,020	390	695	3	68
4	9	9					4	985	388	705	3	68
5	82	9					4	955	378	740	3	31
6	134	9					5	962	362	790	3	3
7	134	27					5	975	362	660	3	3
8	134	74					5	962	337	614	3	3
9	134	62					5	975	310	608	3	74
10	121	78					5	1,010	330	641	104	71
11	106	78					5	1,070	398	654	219	3
12	106	78					5	1,100	475	654	254	46
13	106	45					195	1,060	475	654	283	105
14	50	6					367	1,040	472	770	283	105
15	10	4					361	874	506	660	283	105
16	10	3					386	765	560	615	283	105
17	10	2					386	797	563	676	249	105
18	10	2					381	737	503	480	301	105
19	10	2					390	748	312	414	390	50
20	10	2					374	877	182	631	390	3
21	9	2					462	993	55	653	390	3
22	9	2					517	902	55	620	423	3
23	9	2					517	825	55	620	456	3
24	9	2					514	720	51	675	475	3
25	9	2					560	528	48	641	475	3
26	9	2					607	393	38	641	404	3
27	9	2					595	312	28	641	320	3
28	9	2					790	312	84	612	297	3
29	9	2					944	312	152	168	270	23
30	9	2					920	312	152	163	270	51
31	9	-					*	310	-	58	266	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,302	134	9	42.0	2,580
November.....	567	82	2	18.5	1,100
December.....	62	-	-	2	123
Calendar year 1938.....	63,605	970	2	174	126,200
January.....	93	-	-	3	184
February.....	84	-	-	3	167
March.....	124	-	-	4	246
April.....	9,332	944	4	311	18,510
May.....	24,718	1,100	310	797	49,030
June.....	8,553	563	28	289	17,180
July.....	16,568	914	58	534	32,860
August.....	7,112	475	3	229	14,110
September.....	1,353	134	3	45.1	2,880
Water year 1938-39.....	69,968	1,100	2	192	138,900

*Result of discharge measurement.

East Fork of Sevier River near Kingston, Utah

Location.- Water-stage recorder, lat. 39°12', long. 112°09', in SW¼NW¼ sec: 13, T. 30 S., R. 3 W., 1,000 feet downstream from bridge on State Highway 22, 1.7 miles east of Kingston, and 4.1 miles upstream from mouth. Prior to June 3, 1939, water-stage recorder 1,500 feet downstream at different datum.

Drainage area.- 1,260 square miles.

Records available.- March 1913 to September 1939. May to September 1912, at site 2½ miles downstream, below all diversions.

Average discharge.- 26 years, 90.8 second-feet.

Extremes.- Maximum discharge during year, 316 second-feet July 15 (gage height, 2.45 feet, Otter Creek Reservoir release); minimum daily discharge, 14 second-feet Sept. 26. 1913-39: Maximum discharge, about 2,000 second-feet Aug. 27, 1929, from rating curve extended above 400 second-feet; minimum, 6 second-feet Oct. 30, 1930.

Remarks.- Records fair prior to June 3 and good thereafter. Discharge for periods of ice effect, Nov. 23 to Dec. 2, Feb. 1 to Mar. 13, computed on basis of record of outflow from Otter Creek Reservoir, temperature records, and staff-gage readings on Mar. 6, 12. Discharge interpolated Nov. 13-14. Station is above all diversions for irrigation in vicinity of Kingston. Flow regulated at Otter Creek Reservoir (capacity, 52,600 acre-feet), 8 miles upstream.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	59	85	164	43	16	21	25	164	275	278	79
2	25	62	50	169	38	16	22	28	162	294	275	78
3	28	62	23	161	32	16	23	63	154	300	272	73
4	30	62	25	168	26	16	23	54	157	300	269	81
5	40	62	25	161	22	16	22	58	159	300	269	86
6												
7	45	60	24	161	20	16	21	60	157	297	269	102
8	45	59	25	161	18	16	20	60	154	297	266	162
9	52	62	25	164	16	17	19	62	154	297	264	108
10	56	63	32	164	16	17	19	60	152	294	249	85
11	54	63	58	161	16	16	19	59	152	294	243	88
12												
13	54	64	29	161	16	19	19	58	150	294	240	94
14	55	64	59	161	16	20	19	57	152	294	235	77
15	54	66	166	161	16	21	20	59	179	313	232	54
16	53	68	166	168	16	22	20	60	221	313	227	111
17	54	70	166	161	16	21	20	62	221	313	224	50
18												
19	55	72	166	161	16	21	20	58	224	310	216	28
20	60	73	166	168	16	22	20	45	224	313	106	24
21	60	69	164	158	16	22	20	25	263	307	92	22
22	60	70	166	161	16	23	21	24	275	303	88	19
23	58	72	166	161	16	23	22	24	275	303	88	19
24												
25	57	73	166	164	16	24	43	36	272	303	86	18
26	58	70	175	164	16	25	60	60	272	303	79	17
27	58	70	273	164	16	26	57	58	269	303	78	16
28	59	68	277	164	16	24	32	75	272	303	78	17
29	59	68	277	164	16	24	27	103	272	297	79	16
30												
31	59	70	266	161	16	25	27	110	272	294	79	14
32	59	70	158	161	16	24	28	115	272	294	82	18
33	59	70	155	155	16	24	28	115	272	291	81	16
34	59	72	161	158	-	23	28	115	272	285	84	15
35	58	72	161	119	-	22	27	112	269	281	82	16
36	59	-	161	53	-	22	-	112	-	278	81	-
Month												
October	1,607		60		25		51.8		3,190			
November	2,005		73		59		66.8		3,980			
December	3,980		277		23		123		7,890			
Calendar year 1938	20,876		315		14		57.2		41,400			
January	4,841		164		53		156		9,600			
February	535		43		16		19.1		1,080			
March	641		26		16		20.7		1,270			
April	787		60		19		25.6		1,520			
May	2,012		115		24		64.9		3,990			
June	6,453		275		150		215		12,800			
July	9,243		313		275		293		18,330			
August	5,283		278		73		170		10,480			
September	1,600		152		14		53.3		3,170			
Water year 1938-39	36,967		313		14		107		77,280			

Beaver River near Beaver, Utah

Location.- Water-stage recorder, lat. 38°17', long. 112°34', in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 17, T. 29 S., R. 6 W., at Fishlake National Forest boundary, three-quarters of a mile downstream from Bakers Canyon and 4 $\frac{1}{4}$ miles east of Beaver.

Drainage area.- 82 square miles.

Records available.- June to September 1906, March 1914 to September 1939.

Average discharge.- 25 years (1914-39), 55.2 second-feet.

Extremes.- Maximum discharge during year, 159 second-feet Apr. 30 (gage height, 1.88 feet); minimum, 11 second-feet July 19.

1914-39: Maximum discharge, 1,080 second-feet July 22, 1936 (gage height, 7.27 feet, former site and datum), from rating curve extended above 500 second-feet; minimum, about 5 second-feet Aug. 29, 1931.

Remarks.- Records good except those for periods of ice effect, Nov. 23-30, Dec. 13, 14, 23-28, Jan. 10-12, 17, 18, 24-26, Feb. 1-19, 21, 22, Feb. 27 to Mar. 2 (computed on basis of weather records and hydrographic comparison with Spanish Fork at Castilla) and those Aug. 29, 30 (interpolated), all of which are fair. No diversior above station for irrigation. Water diverted by Telluride Power Co. but returned to stream several miles above station. Flow slightly regulated by operation of power plants and by storage in several small reservoirs.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	26	24	25	20	20	40	129	71	33	25	18
2	25	26	23	23	20	19	44	118	65	31	24	18
3	24	24	22	22	21	20	42	110	63	33	23	17
4	23	25	22	21	21	21	44	134	61	31	24	20
5	21	25	24	21	21	21	48	127	56	30	27	24
6	22	21	22	22	21	21	47	112	52	29	31	32
7	26	24	23	22	21	19	47	110	51	29	26	35
8	28	24	23	22	21	19	57	116	50	29	24	23
9	29	24	22	21	21	19	64	126	50	28	23	21
10	29	22	23	21	20	20	57	119	51	29	22	25
11	32	22	23	21	20	20	54	110	51	30	22	26
12	30	22	22	21	20	21	58	95	50	31	21	42
13	29	22	21	21	20	22	60	90	51	29	21	34
14	29	23	21	23	20	24	52	90	49	28	21	28
15	32	24	22	22	21	24	47	85	47	28	21	23
16	31	22	22	21	21	28	45	83	46	26	19	22
17	29	21	21	20	20	33	47	85	46	26	20	21
18	29	21	23	21	20	36	50	92	46	28	19	21
19	28	22	22	22	20	38	58	90	42	25	20	21
20	27	19	22	21	21	40	69	85	40	26	19	20
21	28	21	22	21	20	36	84	80	38	25	19	20
22	24	19	22	20	20	36	95	78	38	25	16	19
23	26	19	20	21	21	38	88	71	37	24	18	16
24	26	19	19	20	21	36	71	70	39	24	19	16
25	27	20	20	20	21	39	63	64	38	27	19	16
26	27	20	21	21	22	41	58	63	36	29	18	18
27	26	20	22	22	21	35	69	64	36	26	20	18
28	26	21	23	22	21	33	90	63	36	27	24	19
29	25	22	23	22	-	31	106	66	36	29	23	22
30	24	23	23	21	-	28	119	66	34	28	22	22
31	26	23	24	21	-	32	-	69	-	28	22	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	830	32	21	26.8	1,650
November.....	663	26	19	22.1	1,320
December.....	686	24	19	22.1	1,360
Calendar year 1938.....	22,118	405	15	60.6	43,870
January.....	664	25	20	21.4	1,320
February.....	577	22	20	20.6	1,140
March.....	870	41	19	28.1	1,730
April.....	1,873	119	40	62.4	3,720
May.....	2,863	134	63	92.4	5,680
June.....	1,406	71	34	46.9	2,790
July.....	873	33	24	28.2	1,730
August.....	672	31	16	21.7	1,330
September.....	677	42	16	22.6	1,340
Water year 1938-39.....	12,654	134	16	34.7	25,110

Beaver River at Adamsville, Utah

Location.- Water-stage recorder, lat. 38°16', long. 112°48', in S½ sec. 30, T. 29 S., R. 8 W., 600 feet downstream from bridge on State Highway 21, a quarter of a mile upstream from Indian Creek, and three-quarters of a mile south of Adamsville.

Drainage area.- 272 square miles.

Records available.- December 1913 to September 1936, October 1937 to September 1939.

Average discharge.- 23 years (1914-36, 1938-39), 36.5 second-feet.

Extremes.- Maximum discharge during year, 168 second-feet Mar. 9 (gage height, 1.72 feet); no flow for several days in July, August, September.
1913-36, 1937-39: Maximum discharge, 989 second-feet Sept. 1, 1936 (gage height, 5.79 feet, former site and datum), from rating curve extended above 500 second-feet; no flow during periods in 1924, 1931, 1934, 1935, 1939.

Remarks.- Records good except those for days of missing gage heights, those for period of ice effect, and those interpolated, all of which are fair. No diversion between station and Rockyford Reservoir. Several ditches above station divert practically entire flow during irrigation season to supply Adamsville and Beaver districts.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	37	55		-	36	42	5	4	1	1	1
2	19	42	52		-	39	31	4	5	1	1	1
3	18	43	54		-	36	36	5	4	1	1	1
4	16	47	54		-	34	34	4	3	1	1	0
5	16	57	54		-	36	29	*3	2	1	2	4
6	17	51	51		-	37	27	*5	3	1	4	6
7	22	51	51		-	42	27	*2	4	1	2	26
8	42	57	51		-	64	25	2	3	1	1	7
9	47	57	51		-	90	23	2	3	1	1	4
10	32	54	54		-	76	24	2	3	1	1	8
11	51	57	52		-	65	20	1	2	1	1	20
12	34	58	49		-	68	18	2	2	1	1	37
13	32	57	52		-	66	16	3	1	0	1	16
14	32	60	51		-	55	14	4	1	1	2	6
15	38	58	54		-	51	10	4	1	0	0	6
16	37	57	55		-	55	10	4	*1	0	0	7
17	35	54	48		-	57	8	4	*1	0	0	7
18	35	54	48		†53	60	6	2	*2	0	0	7
19	34	55	51		-	60	2	2	*2	0	0	6
20	34	‡56	51		-	54	2	1	2	0	0	6
21	35	‡54	49		-	54	2	1	2	0	0	7
22	36	52	48		-	51	2	2	3	0	1	7
23	35	51	47		-	54	2	2	2	0	1	7
24	34	51	**48		-	51	1	2	2	1	1	6
25	34	51	**48		37	51	2	2	2	1	1	8
26	32	49	**49		38	52	4	2	2	1	1	11
27	34	51	**48		38	52	3	2	1	1	2	15
28	34	49	**49		40	52	2	2	1	1	1	12
29	32	51	**48		-	55	3	2	1	1	2	10
30	32	54	**48		-	57	4	1	1	1	2	8
31	35	-	**48		-	48	-	2	-	0	4	-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				963	47	16	31.1	1,910				
November.....				1,575	60	37	52.5	3,120				
December.....				1,568	55	47	50.6	3,110				
Calendar year 1938.....				17,326	412	5	47.5	34,360				
January.....				1,488	-	-	**48	2,950				
February.....				1,176	-	-	†42	2,330				
March.....				1,657	90	34	53.5	3,290				
April.....				434	42	1	14.5	861				
May.....				79	5	1	2.5	157				
June.....				66	5	1	2.2	131				
July.....				20	1	0	0.6	40				
August.....				36	4	0	1.2	71				
September.....				264	37	0	8.5	524				
Water year 1938-39.....				9,326	90	0	25.6	18,490				

*Interpolated.

†Discharge measurement.

‡Gage height missing; estimated.

**Stage-discharge relation affected by ice; discharge computed on basis of weather records.

††Stage-discharge relation affected by ice Feb. 1-24; mean discharge for February computed on basis of one discharge measurement, weather records, and records for period of open water, Feb. 24-28.

Rockyford Reservoir near Minersville, Utah

Location.- Staff gage, lat. 38°14', long. 112°50', in NE¼ sec. 11, T. 30 S., R. 9 W., at Rockyford Dam, 5 miles east of Minersville.

Drainage area.- 510 square miles.

Records available.- October 1937 to September 1939.

Extremes.- 1937-38: Maximum contents observed, 20,400 acre-feet June 9 (gage height, 48.3 feet); minimum observed, 6,050 acre-feet Sept. 30 (gage height, 28.7 feet).

1938-39: Maximum contents observed, 18,890 acre-feet Apr. 10 (gage height, 46.7 feet); minimum observed, 852 acre-feet Sept. 30 (gage height, 11.4 feet).

Remarks.- Reservoir is formed by earth-fill dam, completed in 1914. Capacity, 23,260 acre-feet between gage heights 0 feet (bottom of outlet tunnel) and 51.0 feet (spillway crest). Prior to fall of 1937 the spillway crest was at elevation 52.5 feet. Dead storage negligible. Water is used for irrigation on lands of Delta Land & Water Co.

Capacity table (gage height, in feet, and contents, in acre-feet)
(Furnished by State engineer and computed from project map)

9	458	16	1,760	24	4,060	32	7,820	40	13,110	48	20,120
10	622	18	2,250	26	4,920	34	8,910	42	14,720	50	22,160
12	950	20	2,810	28	5,750	36	10,270	44	16,340	52	24,360
14	1,280	22	3,440	30	6,720	38	11,620	46	18,250		

Contents, in acre-feet, 1937-39
1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9,620	-	-	-	15,770	17,570	-	-	-	-	-	-
2	-	-	-	13,270	-	-	19,600	-	-	-	-	8,090
3	-	-	-	-	-	17,850	-	19,360	20,120	-	-	-
4	-	-	-	-	-	-	19,650	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	7,870
6	-	-	-	-	-	-	-	-	-	16,180	-	-
7	-	-	-	-	16,180	18,320	-	-	-	-	-	-
8	-	-	-	13,920	-	-	19,740	-	-	-	10,610	-
9	-	-	-	-	-	18,510	-	18,140	20,400	-	-	-
10	-	-	-	-	16,340	-	19,840	-	-	-	-	-
11	9,250	-	-	-	-	-	-	-	-	-	-	7,600
12	-	-	-	-	-	18,610	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	19,950	-	-	-
14	-	-	11,960	-	-	18,800	-	17,100	-	14,550	-	-
15	-	-	-	14,560	16,720	-	19,930	-	-	-	9,930	-
16	-	-	-	-	-	-	-	17,280	-	-	-	7,210
17	-	-	-	-	-	18,940	-	-	-	-	9,320	-
18	-	-	-	14,720	-	18,990	-	17,570	18,890	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	-	-	-	-	-	19,080	20,070	-	-	-	-	-
21	-	-	-	-	-	-	-	17,850	-	-	-	6,610
22	8,910	-	-	-	-	19,180	20,260	-	-	12,370	8,800	-
23	-	-	-	-	17,100	-	-	-	-	-	-	-
24	-	-	-	-	-	19,360	20,310	17,900	17,760	-	-	6,390
25	-	9,790	-	15,290	-	-	-	-	-	-	-	-
26	-	-	-	-	17,280	-	-	17,990	-	-	-	-
27	-	-	-	-	-	19,460	-	18,230	-	-	8,140	-
28	-	-	15,530	17,470	-	-	-	18,610	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	*10,380	13,110	-	-	19,550	19,740	19,270	16,910	-	7,870	6,050
31	*9,140	-	*13,160	*15,710	-	*19,570	-	*19,480	-	10,970	7,920	-

*Interpolated.

Contents in acre-feet, of Rockyford Reservoir near Minersville, Utah, 1937-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,050	-	-	-	14,080	16,180	-	-	-	-	-	-
2	-	-	-	12,700	-	-	-	-	-	-	-	1,250
3	-	7,380	-	-	-	-	-	-	-	6,170	-	-
4	-	-	-	-	-	-	18,800	-	-	-	3,410	-
5	-	-	10,200	-	-	-	-	-	-	-	-	-
6	5,960	-	-	-	-	-	-	-	10,000	5,920	-	-
7	-	-	-	-	-	-	-	-	-	-	3,130	-
8	-	-	-	-	-	-	-	14,560	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	1,130
10	-	7,980	-	-	-	-	18,890	-	9,450	-	-	1,150
11	6,130	-	-	-	-	-	-	-	-	-	-	-
12	-	-	10,540	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	13,750	-	4,920	-	1,280
14	-	-	-	-	-	-	18,700	-	-	-	2,740	-
15	-	-	-	13,350	15,370	17,100	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	6,440	-	-	-	-	-	-	15,110	-	4,370	-	-
18	-	-	11,280	-	-	-	-	18,610	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	1,250
20	-	-	-	-	-	-	-	-	7,820	4,210	-	-
21	-	-	-	-	-	-	-	-	-	-	2,200	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	12,230	-	-	-	-
24	-	8,980	11,890	-	-	-	17,470	-	-	-	-	-
25	6,940	-	-	-	-	-	-	-	-	-	-	1,080
26	-	-	-	-	-	-	-	-	-	-	1,740	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	7,160	9,450	-	-	*16,120	-	-	-	-	3,790	-	968
29	-	-	12,300	-	-	-	-	-	-	-	1,470	-
30	-	*9,660	-	-	-	-	16,260	-	6,660	-	-	852
31	*7,270	-	*12,500	*14,040	-	18,610	-	11,010	-	3,690	*1,360	-

*Interpolated.

Monthly gage height and contents, 1937-39

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30, 1937.....	34.9	9,520	-
Oct. 31.....	-	*9,140	-380
Nov. 30.....	-	*10,380	+1,240
Dec. 31.....	-	*13,160	+2,780
Jan. 31, 1938.....	-	*15,710	+2,550
Feb. 28.....	-	*17,470	+1,760
Mar. 31.....	-	19,570	+2,100
Apr. 30.....	47.6	19,740	+170
May 31.....	-	*19,480	-260
June 30.....	44.6	16,910	-2,570
July 31.....	37.0	10,940	-5,970
Aug. 31.....	32.2	7,920	-3,020
Sept. 30.....	28.7	6,050	-1,870
Water year 1937-38.....	-	-	-3,470
Sept. 30, 1938.....	28.7	6,050	-
Oct. 31.....	-	*7,270	+1,220
Nov. 30.....	-	*9,660	+2,390
Dec. 31.....	-	*12,500	+2,840
Calendar year 1938.....	-	-	-660
Jan. 31, 1939.....	-	*14,040	+1,540
Feb. 28.....	-	*16,120	+2,080
Mar. 31.....	46.4	18,610	+2,490
Apr. 30.....	43.9	16,260	-2,350
May 31.....	37.1	11,010	-5,250
June 30.....	29.9	6,660	-4,350
July 31.....	22.8	3,690	-2,970
Aug. 31.....	-	*1,360	-2,330
Sept. 30.....	11.4	852	-508
Water year 1938-39.....	-	-	-5,200

*Contents interpolated; gage not read.

Beaver River at Rockyford Dam, near Minersville, Utah

Location.- Water-stage recorder and concrete control, lat. 38°14', long. 112°50' in NW¼ sec. 11, T. 30 S., R. 9 W., half a mile downstream from Rockyford Dam and 4½ miles (revised) east of Minersville.

Drainage area.- 512 square miles.

Records available.- December 1913 to September 1939.

Average discharge.- 24 years (1914-36, 1937-39), 38.8 second-feet.

Extremes.- Maximum daily discharge during year, 128 second-feet May 3 (gare height, 1.70 feet); minimum daily, 6 second-feet Nov. 10-20, Dec. 10-14.

1913-39: Maximum discharge, 727 second-feet June 10, 1921 (gare height, 3.53 feet); minimum, 0.3 second-foot (estimated) Mar. 19, 20, 1914.

Remarks.- Records good. During period Nov. 4 to Mar. 9 gage read about once weekly; discharge for intervening days interpolated. One small diversion between dam and gage. Flow regulated by operation of gates at Rockyford Dam and affected also by several diversions above reservoir for irrigation and municipal supply.

Rating tables, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 6						Nov. 7 to Sept. 30					
0.6	0	1.0	19	1.4	65	0.6	0	1.1	31	1.6	108
.7	2	1.1	28	1.6	96	.7	1	1.2	45	1.7	128
.8	5	1.2	39	1.8	130	.8	5	1.3	57	1.8	150
.9	11	1.3	51	2.0	166	.9	12	1.4	71		
						1.0	21	1.5	89		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	29	17	7	7	7	8	11	11	118	98	70	51	32
2	27	17	7	7	7	8	11	11	128	93	84	54	33
3	27	17	7	7	7	8	11	12	128	89	82	56	35
4	27	17	7	7	7	8	11	12	124	91	80	57	35
5	26	17	8	7	8	11	12	122	91	80	58	36	
6	26	10	8	7	8	11	12	108	91	80	58	29	
7	26	7	8	7	8	11	12	104	89	80	58	28	
8	26	7	8	7	8	11	12	100	87	80	54	20	
9	25	7	7	7	8	12	12	100	95	80	43	17	
10	26	6	6	7	8	12	12	97	97	79	38	17	
11	23	6	6	7	8	12	21	93	97	79	35	16	
12	23	6	6	7	8	11	23	83	97	80	36	17	
13	23	6	6	8	8	11	23	93	89	79	37	16	
14	21	6	6	8	8	11	23	91	89	79	37	16	
15	19	6	7	8	8	12	35	87	89	75	37	16	
16	19	6	7	8	8	12	36	87	89	69	38	19	
17	19	6	7	8	8	12	42	89	89	68	45	21	
18	19	6	7	8	8	12	41	89	89	49	46	21	
19	19	6	7	8	8	12	51	89	89	47	50	22	
20	19	6	7	8	9	12	80	82	80	44	49	27	
21	19	7	7	8	10	12	89	80	70	37	49	27	
22	19	7	7	8	10	13	96	79	70	36	49	26	
23	19	7	7	8	11	12	102	79	70	37	51	33	
24	19	7	7	8	11	12	108	80	69	37	50	36	
25	19	7	7	8	11	12	102	86	72	37	50	36	
26	19	7	7	8	11	11	106	91	70	37	47	36	
27	19	7	7	8	11	11	108	91	62	37	47	36	
28	19	7	7	8	11	11	112	91	57	37	47	42	
29	19	7	7	8	-	12	114	97	68	37	36	44	
30	19	7	7	8	-	11	118	100	68	28	36	44	
31	19	-	7	8	-	11	-	100	-	22	32	-	
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet							
October	676	29	19	21.5	1,540								
November	252	17	6	8.4	500								
December	216	8	6	7.0	428								
Calendar year 1938	17,768	144	6	48.7	35,240								
January	256	8	7	7.6	468								
February	248	11	8	8.9	492								
March	368	13	11	11.6	710								
April	1,547	118	11	51.6	3,070								
May	2,394	128	79	96.8	5,940								
June	2,474	98	57	82.5	4,810								
July	1,836	84	22	59.2	3,640								
August	1,429	68	32	46.1	2,830								
September	832	44	16	27.7	1,650								
Water year 1938-39	13,098	128	6	36.9	25,980								

Coal Creek near Cedar City, Utah

Location.- Water-stage recorder, lat. 37°40'25", long. 113°02'10", in NE¼ sec. 13, T. 36 S., R. 11 W., at flood-control dam, 1½ miles southeast of Cedar City and 3½ miles downstream from South Creek, Staff gage was used at same location and datum prior to Mar. 30, 1939.

Drainage area.- 92 square miles.

Records available.- May 1935 to September 1939. May 1915 to November 1919 at approximately same site, but records do not include flow of power canal operated during this period (abandoned since 1919). Records equivalent if flow of power canal is added to those obtained at former site.

Extremes.- Maximum discharge observed during year, 1,850 second-feet Sept. 6 (gage height, 5.10 feet), from rating curve extended by broad-crested-weir formula; minimum daily discharge, 6 second-feet Aug. 17, 1935-39: Maximum discharge observed, 2,910 second-feet July 9, 1936 (gage height, 6.4 feet), from rating curve extended by broad-crested-weir formula; minimum observed, 4 second-feet Dec. 15, 1935.

Remarks.- Records good Mar. 30 to Sept. 5; fair the rest of the year. Discharge for periods of ice effect, Dec. 25, 26, Jan. 1 to Mar. 9, computed on basis of records for stations on Beaver River, temperature records, and one discharge measurement. No diversions above station for irrigation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	14	12			12	33	121	47	10	9	8
2	14	17	12			11	33	121	40	9	8	7
3	14	14	12			11	34	119	35	10	8	7
4	13	12	12			12	37	116	32	10	8	12
5	13	14	12			13	37	101	30	9	10	12
6	13	12	12			14	35	89	26	10	9	282
7	16	12	12			15	34	76	25	10	8	37
8	17	12	12			16	42	76	26	10	7	15
9	22	12	12			17	48	76	22	10	8	19
10	27	14	12			18	44	76	21	10	8	31
11	26	12	12			21	41	68	21	9	8	37
12	26	12	11			21	50	62	21	9	8	140
13	23	12	12			24	53	61	20	9	8	81
14	25	14	12			26	41	59	19	8	8	31
15	99	14	12			26	35	55	18	8	7	19
16	*50	14	12			31	34	53	17	8	7	16
17	19	14	12			37	35	55	17	9	6	14
18	18	14	12			38	44	55	17	8	7	14
19	17	14	12			40	59	53	17	8	7	13
20	*16	14	12			38	76	50	15	8	8	13
21	14	14	12			34	81	47	14	8	8	14
22	15	14	10			35	99	44	14	8	8	10
23	14	15	10		†15	31	76	44	14	8	8	10
24	14	14	11			36	64	42	14	9	8	10
25	13	12	11			41	62	40	13	9	8	10
26	13	12	11			32	68	38	12	10	10	15
27	14	12	12			28	85	37	12	10	11	15
28	13	12	12			24	114	37	11	12	10	14
29	13	12	12			22	114	37	10	9	140	19
30	13	12	11			24	124	40	10	9	8	14
31	14	-	12			27	-	40	-	11	8	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	611		99	13	19.7	1,210						
November.....	394		17	12	13.1	781						
December.....	363		12	10	11.7	720						
Calendar year	-		-	-	-	-						
January.....	372		-	-	12	758						
February.....	336		-	-	12	656						
March.....	775		41	11	25.0	1,540						
April.....	1,730		124	33	57.7	3,430						
May.....	1,988		121	37	64.1	3,940						
June.....	609		47	10	20.3	1,210						
July.....	285		12	8	9.2	565						
August.....	384		140	6	12.4	782						
September.....	939		282	7	31.3	1,560						
Water year 1938-39.....	8,756		282	6	24.1	17,420						

*Estimated.

†Discharge measurement.

SALTON SEA BASIN

Salton Sea, Calif.

Location.- Bench mark set by Imperial Irrigation District, lat. 33°26'55", long. 116°02'20", in NW¼ sec. 27, T. 8 S., R. 9 E., 1 mile northeast of Figtree John Spring and about 9 miles south of Mecca. Elevation is 242.44 feet below mean sea level.

Records available.- November 1904 to September 1939. Records prior to September 1932 in Water-Supply Paper 735.

Extremes.- Maximum stage, 195.0 feet below mean sea level in February and March 1907; minimum since 1906, 250.7 feet below mean sea level in November 1924; bottom of sea (from 1904-5 determinations) is 273.5 feet below mean sea level.

Remarks.- Area of water surface of sea at elevation 250 feet below mean sea level, 266 square miles; area at 240 feet below mean sea level, 328 square miles. See Water-Supply Paper 735 for condensed history of Salton Sea. Elevations in the following table, furnished by Imperial Irrigation District, were determined by leveling from above-mentioned bench mark.

Elevation, in feet, below mean sea level, water year October 1938 to September 1939

Oct. 1	245.5	Mar. 1	244.0	Aug. 1	244.1
Nov. 1	245.7	Apr. 1	243.7	Sept. 1	244.3
Dec. 1	245.5	May 1	243.5	Sept. 11	243.1
Jan. 5	244.7	June 1	243.7	Sept. 16	243.2
Feb. 1	244.3	July 1	243.9		

Palm Canyon Creek near Palm Springs, Calif.

Location.- Water-stage recorder, lat. 33°44'55", long. 116°32'15", in S½ sec. 11, T. 5 S., R. 4 E., three-quarters of a mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs. Altitude, about 700 feet.

Drainage area.- 94.0 square miles.

Records available.- January 1930 to September 1939.

Extremes.- Maximum discharge during year, 223 second-feet Sept. 24 (gage height, 2.00 feet), from rating curve extended above 30 second-feet on basis of velocity-area studies; no flow at times from June to September.

1930-39: Maximum discharge, 3,850 second-feet Feb. 6, 1937 (gage height, 5.60 feet), from rating curve extended above 120 second-feet on basis of velocity-area studies; no flow for several months during most years.

Remarks.- Records fair. Discharge interpolated for periods of missing or faulty gage heights, Dec. 3-5, Jan. 22-23, Feb. 10-11, Mar. 24-28, Apr. 16-17, Apr. 27 to May 9, May 17-24, Sept. 8-14.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.				
1	0.6	0.3	1.1	2.2	10	7	9	3.2	0.2		0	0				
2	.6	.4	1.1	2.2	7.5	6.5	9	3.0	.2		0	0				
3	.6	.4	1.2	2.6	12	6.5	9.5	2.8	.1		0	0				
4	.6	.4	1.2	2.2	34	6.5	9	2.5	.1		0	0				
5	.6	.4	1.3	6	21	6.5	7.5	2.2	0		0	7.5				
6	.7	.6	1.3	21	18	6	7	2.0	0		0	10				
7	.9	.6	1.1	9.5	20	5.5	6.5	1.8	0		0	2.9				
8	1.1	.6	1.1	7	46	5.5	6.5	1.6	0		0	.5				
9	1.1	.6	1.1	48	31	5.5	6	1.4	0		0	.3				
10	.9	.6	1.3	26	28	9.5	5.5	1.3	0		0	.2				
11	.6	.7	1.3	18	25	9.5	5.5	1.3	0		0	.2				
12	.6	.9	1.6	16	22	7.5	5.5	1.3	0		0	.1				
13	.6	.9	1.6	14	21	7	6	1.1	0		0	0				
14	.7	.9	1.6	12	18	7	9.5	1.1	0		0	0				
15	.9	.9	4.1	9.5	18	7	9	1.1	0		0	0				
16	.9	.7	6.5	8	18	7	7.5	1.1	0		0	0				
17	.7	.7	3.3	7	16	7	6	1.0	0		0	0				
18	.7	.6	4.1	6.5	15	7	5	1.0	0		0	0				
19	.7	.6	8	5.5	14	7	4.6	.9	0		0	0				
20	.6	.6	22	5.5	14	7.5	4.6	.9	0		0	0				
21	.4	.6	24	9.5	12	9.5	4.1	.9	0		0	0				
22	.3	.7	15	8	11	8	3.7	.8	0		0	0				
23	.2	.7	9.5	7.5	10	7.5	4.1	.7	0		0	0				
24	.2	.9	6	7	9.5	7.5	4.1	.7	0		0	40				
25	.2	.9	4.6	6.5	9.5	7	4.1	.6	0		0	76				
26	.2	1.1	4.1	5.5	8	6.5	4.1	.4	0		.4	23				
27	.2	1.1	3.7	5	7.5	7	4.0	.3	0		0	7				
28	.2	1.1	3.3	8	7.5	20	3.9	.3	0		0	3.3				
29	.2	1.1	2.6	7	-	12	3.8	.2	0		0	1.9				
30	.2	1.1	2.6	6	-	11	3.5	.2	0		0	1.6				
31	.2	-	2.6	1.6	-	9.5	-	.2	0		0	-				
Month	Second-foot-days												Maximum	Minimum	Mean	Run-off in acre-feet
October.....	17.2												1.1	0.2	0.55	34
November.....	21.7												1.1	.3	.72	45
December.....	145.9												24	1.1	4.64	235
Calendar year 1938.....	3,806.6												813	.2	10.4	7,550
January.....	314.7												48	2.2	10.2	624
February.....	493.5												46	7.5	17.3	960
March.....	244.0												20	5.5	7.87	484
April.....	178.1												9.5	3.5	5.94	353
May.....	37.9												3.2	.2	1.22	75
June.....	0												0	0	.02	1.2
July.....	0												0	0	0	0
August.....	.4												.4	0	.01	.8
September.....	174.5												76	0	5.82	346
Water year 1938-39.....	1,616.5												76	0	4.43	3,210

Peak discharge.- Jan. 9 (6 p.m.) 134 sec.-ft.; Feb. 8 (11 a.m.) 96 sec.-ft.; Sept. 24 (2 p.m.) 235 sec.-ft.

Deep Creek near Hesperia, Calif.

Location.--Water-stage recorder and concrete control, lat. 34°20'30", long. 117°13'40", in SE¼ sec. 18, T. 3 N., R. 3 W., half a mile upstream from confluence with West Fork of Mojave River to form Mojave River and 8 miles southeast of Hesperia. Altitude, about 3,050 feet.

Drainage area.- 137 square miles.

Records available.- December 1929 to September 1939.

Extremes.- Maximum discharge during year, 1,850 second-feet Sept. 25 (gage height, 4.38 feet), from rating curve extended above 230 second-feet on basis of broad-crested weir studies; minimum, 1.2 second-feet Sept. 4 (gage height, 0.86 feet).
1929-39: Maximum discharge, 46,600 second-feet Mar. 2, 1938, by slope-area method; minimum, 0.1 second-foot at times during 1932-34 and 1936.

Remarks.- Records good except those for period Oct. 1 to Mar. 22, which are fair. Discharge for periods of missing gage heights, Oct. 1-12, Nov. 10-17, and Nov. 29 to Dec. 8, computed on basis of several discharge measurements and records for Cajon Creek. Discharge for Sept. 5-6 interpolated. Storage in Lake Arrowhead above station. Hesperia Water Co.'s canal diverts about 2 miles above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	15	18	28	32	48	132	48	9	3.1	2.2	1.9
2	9	14	17	28	33	42	351	45	8.5	3.0	2.5	1.5
3	9	14	17	28	36	43	491	40	9	2.9	3.3	1.4
4	9	12	17	29	34	44	310	42	8	3.3	2.6	1.3
5	9	12	16	45	36	45	270	38	8	4.0	2.6	1.6
6	10	13	16	141	40	50	225	38	8.5	2.3	2.5	1.9
7	11	14	16	90	40	55	180	38	9	2.0	2.5	2.1
8	11	16	15	72	38	63	162	36	6.5	1.8	2.4	1.9
9	11	17	16	67	34	65	149	32	8.5	1.8	2.0	1.8
10	12	17	16	54	38	76	136	31	8	1.9	1.9	1.9
11	12	17	15	50	42	76	125	30	7	2.1	1.7	2.8
12	12	19	15	45	44	83	118	32	7	2.0	1.7	3.3
13	18	17	16	43	51	88	110	33	7	1.9	1.7	2.5
14	20	15	17	37	52	95	113	33	6	1.9	1.6	2.8
15	24	14	20	36	65	110	103	31	5.5	2.8	1.5	2.8
16	20	14	54	34	65	122	119	31	4.9	2.6	1.8	2.6
17	14	13	32	31	71	175	119	30	5	2.2	1.5	2.6
18	11	12	45	31	69	205	103	28	4.8	3.1	1.4	2.6
19	13	15	182	30	67	235	95	27	4.8	3.4	1.7	2.8
20	14	16	195	32	72	230	90	26	4.9	2.2	1.8	3.1
21	12	15	132	36	78	235	81	24	4.9	2.1	1.7	6
22	12	14	76	39	74	245	72	25	4.8	2.0	1.8	3.8
23	12	14	67	38	78	190	69	24	4.6	2.1	1.8	3.5
24	12	13	47	34	83	162	65	22	4.3	2.4	1.8	4.6
25	12	13	40	33	76	168	62	19	4.1	2.6	1.7	508
26	12	15	54	32	72	149	57	19	4.0	2.5	2.0	289
27	12	16	30	31	62	175	55	19	4.0	2.5	2.3	63
28	12	17	28	32	57	145	52	19	3.7	2.4	2.6	31
29	14	15	25	32	-	136	51	19	3.7	2.6	2.3	23
30	14	16	26	30	-	132	47	19	3.7	2.6	2.4	20
31	14	-	26	31	-	136	47	15	-	2.2	2.8	-
Month		Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	396	24	9	12.8	785							
November.....	449	19	12	15.0	891							
December.....	1,236	195	15	39.9	2,450							
Calendar year 1938.....	75,074	12,000	6	200	146,000							
January.....	1,319	141	28	42.5	2,620							
February.....	1,559	63	32	55.7	3,090							
March.....	3,813	245	42	123	7,560							
April.....	4,111	491	47	137	3,150							
May.....	911	46	15	29.4	1,610							
June.....	183.7	9	3.7	8.12	364							
July.....	76.3	4.0	1.6	2.46	151							
August.....	64.1	3.3	1.3	2.07	127							
September.....	997.1	508	1.3	33.2	1,980							
Water year 1938-39.....	15,115.2	508	1.3	41.4	29,980							

Peak discharge.- Dec. 20 (4 p.m.) 290 sec.-ft.; Apr. 2 (11:30 p.m.) 916 sec.-ft.; Sept. 25 (5 p.m.) 1,850 sec.-ft.

Mojave River at lower narrows, near Victorville, Calif.

Location.- Water-stage recorder, lat. 34°34'25", long. 117°19'10", in SW¼ sec. 29, T. 6 N., R. 4 W., 500 feet upstream from bridge on U. S. Highway 66 and 3 miles northwest of Victorville.

Drainage area.- 530 square miles.

Records available.- October 1936 to September 1939. February 1899 to July 1906 and November 1930 to September 1936, at site 3 miles upstream.

Extremes.- Maximum discharge during year, 440 second-feet Apr. 3 (gage height, 2.17 feet); minimum, 14 second-feet July 16, 27.
1930-39: Maximum discharge, 70,600 second-feet Mar. 2, 1938 (gage height, 16.70 feet), by slope-area method; minimum, 11 second-feet Aug. 12, 1937.

Remarks.- Records good. Discharge interpolated for period Dec. 16-21. Storage at Lake Arrowhead and Lake Gregory, upstream from station. Diversions for irrigation from Deep Creek by Hesperia Water Co. and from Mojave River at Victorville.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	36	44	44	48	42	78	36	25	25	23	19
2	28	36	44	46	48	42	78	38	25	20	22	18
3	30	36	44	46	50	42	361	38	22	17	30	18
4	28	38	46	46	46	40	297	38	25	22	24	18
5	28	38	44	50	50	42	242	38	25	20	24	18
6	26	40	44	46	50	42	192	40	25	20	22	19
7	26	42	44	46	50	42	160	42	24	20	22	23
8	30	42	44	48	52	40	128	40	24	20	23	24
9	31	42	44	46	54	46	110	38	24	19	22	28
10	34	44	48	46	50	44	96	38	24	19	20	30
11	38	48	44	42	48	44	84	58	22	19	20	28
12	40	48	46	44	48	42	74	38	25	19	19	28
13	38	50	50	46	50	46	64	36	19	16	19	28
14	42	50	52	48	48	46	74	34	20	16	20	28
15	42	50	54	52	48	46	64	35	19	16	22	28
16	42	48	54	48	48	44	61	34	16	16	22	28
17	42	48	55	50	50	46	64	35	19	16	20	28
18	34	48	55	50	46	42	56	34	19	16	22	28
19	36	48	55	52	46	50	48	35	20	16	20	28
20	33	48	55	50	46	52	44	35	20	16	20	28
21	33	48	56	56	50	56	38	31	22	15	20	26
22	34	44	56	52	50	58	35	31	20	15	20	26
23	36	48	54	46	50	78	34	30	22	16	20	24
24	38	50	50	46	46	71	34	30	20	16	19	23
25	38	50	48	46	46	71	34	28	19	16	20	54
26	38	50	46	48	46	71	34	28	18	15	19	64
27	36	50	44	48	44	84	36	26	20	16	20	54
28	38	50	44	50	42	113	34	24	20	16	19	40
29	44	52	44	48	-	94	34	25	20	16	20	36
30	38	48	44	46	-	88	34	24	22	16	20	36
31	36	-	42	48	-	81	-	24	-	20	19	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,087	44	26	35.1	2,160
November.....	1,368	52	36	45.6	2,710
December.....	1,488	56	42	48.0	2,950
Calendar year 1938.....	95,425	16,000	19	261	169,300
January.....	1,480	56	42	47.7	2,940
February.....	1,354	54	42	48.4	2,690
March.....	1,745	113	40	56.2	3,460
April.....	2,698	361	33	89.9	5,350
May.....	1,031	42	23	33.3	2,040
June.....	653	24	16	21.1	1,260
July.....	551	23	15	17.8	1,090
August.....	658	30	19	21.0	1,290
September.....	875	64	18	29.2	1,740
Water year 1938-39.....	14,961	361	15	41.0	29,680

Peak discharge.- Apr. 3 (8:50 a.m.) 440 sec.-ft.

MOJAVE RIVER BASIN

Mojave River at Barstow, Calif.

Location.- Water-stage recorder, lat. 34°54'25", long. 117°01'20", in SW $\frac{1}{4}$ S $\frac{1}{4}$ sec. 31, T. 10 N., R. 1 W., on U. S. Highway 91 at Barstow. Altitude, about 2,090 feet.

Records available.- November 1930 to September 1939.

Extremes.- Maximum discharge during year not determined; no flow during most of year. 1930-39: Maximum discharge, 64,300 second-feet Mar. 3, 1938 (gage height, 8.60 feet), by slope-area method; no flow for several months each year.

Remarks.- Records poor. Discharge computed on basis of one discharge measurement and records for Mojave River at lower narrows, near Victorville. Storage and many diversions upstream from station (see preceding page).

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	0					
2						0	0					
3						0	0					
4						0	81					
5						0	85					
6						0	55					
7						0	27					
8						0	10					
9						0	5					
10						0	3.0					
11						0	2.0					
12						0	1.0					
13						0	0					
14						0	0					
15						0	0					
16						0	0					
17						0	0					
18						0	0					
19						0	0					
20						0	0					
21						0	0					
22						1.0	0					
23						3.2	0					
24						1.0	0					
25						0	0					
26						0	0					
27						0	0					
28						0	0					
29						0	0					
30						0	0					
31						0	-					
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	0	0	0	0	0	0						
November.....	0	0	0	0	0	0						
December.....	0	0	0	0	0	0						
Calendar year 1938.....	69,622.4	18,100	0	191	138,100							
January.....	0	0	0	0	0	0						
February.....	0	0	0	0	0	0						
March.....	5.2	3.2	0	.17	10							
April.....	272.0	85	0	9.07	540							
May.....	0	0	0	0	0	0						
June.....	0	0	0	0	0	0						
July.....	0	0	0	0	0	0						
August.....	0	0	0	0	0	0						
September.....	0	0	0	0	0	0						
Water year 1938-39.....	277.2	85	0	.76	550							

West Fork of Mojave River near Hesperia, Calif.

Location.- Water-stage recorder, lat. 34°20'20", long. 117°14'35", in SE¼ sec. 13, T. 3 N., R. 4 W., at highway bridge half a mile upstream from confluence with Deep Creek to form Mojave River and 7 miles southeast of Hesperia. Altitude, about 3,050 feet.

Drainage area.- 74.8 square miles.

Records available.- January 1930 to September 1939.

Extremes.- Maximum discharge during year, 681 second-feet Dec. 19 (gage height, 3.28 feet, from rating curve); no flow for several months.
1930-39: Maximum discharge, 26,100 second-feet Mar. 2, 1938, by slope-area method; no flow during several months of each year.

Remarks.- Records good except those for periods of silted intake, Oct. 8-19, Apr. 10-13, Apr. 16-23, May 5-13, and May 15 to June 30, which were computed on basis of frequent discharge measurements and records for Cajon Creek near Keenbrook and Deep Creek near Hesperia and are fair. Storage at Lake Gregory above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.1	0.2	17	28	22	31	5				0
2	.1	.2	.2	16	25	22	74	3.5				0
3	.1	.2	.2	16	29	26	30	3.1				0
4	.1	.2	.2	15	43	29	60	1.8				0
5	.1	.2	.2	87	41	20	49	1.6				0
6	.1	.2	.2	114	39	19	40	1.5				0
7	.1	.1	.2	55	42	16	34	1.4				0
8	.1	.2	.2	40	79	16	28	1.3				0
9	.1	.2	.2	40	60	19	27	1.2				0
10	.1	.3	.2	35	52	60	25	1.1				0
11	.1	.3	.2	29	42	61	23	1.0				0
12	.1	.3	.2	28	31	46	22	1.0				0
13	.5	.3	.2	27	31	45	28	1.0				0
14	1.0	.2	.3	25	31	42	45	2.0				0
15	2.0	.2	4.3	23	31	40	34	1.0				0
16	1.0	.1	25	22	55	36	26	.8				0
17	.8	.2	11	20	29	36	21	.7				0
18	.7	.2	92	19	23	37	16	.4				0
19	.6	.2	316	19	23	37	14	.4				0
20	.6	.2	283	20	24	39	12	.3				0
21	.3	.2	186	42	22	31	11	.3				0
22	.2	.2	95	48	21	39	11	.3				0
23	.1	.2	68	34	21	32	11	.2				0
24	.1	.2	54	26	20	24	9.5	.2				0
25	.1	.2	48	23	23	20	10	.2				18
26	.1	.2	39	22	26	29	9.5	.2				27
27	.1	.2	31	22	25	100	6.5	.2				.4
28	.1	.2	27	20	25	90	8.5	.1				0
29	.1	.2	20	19	-	58	7	.1				0
30	.1	.2	18	19	-	45	6	.1				0
31	.1	-	18	28	-	55	-	0				-
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				9.9	2.0	0.1	0.32	20				
November.....				6.1	.3	.1	.20	12				
December.....				1,538.2	316	.2	43.2	2,650				
Calendar year 1938.....				39,661.2	7,000	0	109	78,670				
January.....				970	114	15	31.3	1,920				
February.....				951	79	20	33.2	1,850				
March.....				1,190	100	16	38.4	2,360				
April.....				781.0	80	6	28.0	1,550				
May.....				32.0	5	0	1.03	65				
June.....				0.6	0	0	.02	1.2				
July.....				0	0	0	0	0				
August.....				0	0	0	0	0				
September.....				45.4	27	0	1.51	90				
Water year 1938-39.....				5,304.2	316	0	14.5	10,520				

Peak discharge.- Dec. 19 (4 a.m.) 681 sec.-ft.; Dec. 20 (4:30 p.m.) 408 sec.-ft.; Jan. 5 (8 p.m.) 283 sec.-ft.

Rock Creek near Valyermo, Calif.

Location.- Water-stage recorder, lat. 34°25'10", long. 117°50'25", in NE¼ sec. 20, T. 4 N., R. 9 W., 1¼ miles southeast of Valyermo. Altitude, about 4,050 feet.

Drainage area.- 23.0 square miles.

Records available.- January 1923 to September 1939.

Average discharge.- 15 years (1923-37, 1938-39), 12.6 second-feet.

Extremes.- Maximum discharge during year, 552 second-feet Dec. 18 (gage height, 9.70 feet) from Rating curve extended logarithmically above 30 second-feet; minimum, 5.5 second-feet Sept. 16 (gage height, 2.14 feet).

1923-39: Maximum discharge, 8,300 second-feet Mar. 2, 1938, by slope-area method; minimum, 1.2 second-feet Aug. 22, 1925.

Remarks.- Records good except those for period Dec. 14 to Jan. 27, which are fair. Records for period Oct. 1 to Jan. 27, which were obtained from a temporary station 600 feet downstream, include flow of Punchbowl Creek. Discharge for Dec. 20-21, 24-29, and Jan. 7, computed on basis of records for nearby streams. No diversions upstream from station. Results of eight discharge measurements furnished by Los Angeles County Flood Control District.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9	8.5	7	14	13	11	23	20	15	12	8.5	7.5
2	9.5	8	7	14	12	11	49	20	15	12	8.5	7
3	9.5	8	7	14	13	11	41	20	14	12	9	7
4	9	7.5	7	14	12	11	38	19	15	12	8.5	7
5	9	8	7	18	12	11	36	19	15	12	8.5	7
6	9	8	7	16	12	11	34	18	15	12	9	7.5
7	9	8	7	15	12	11	32	18	15	11	9	7
8	9	7.5	7	14	13	10	30	17	15	11	9	6
9	9.5	7.5	7	14	12	11	30	16	15	11	9	6
10	9.5	7	7	14	12	12	28	16	15	11	9	6
11	9.5	7	7	14	12	12	28	16	15	11	9	6
12	9	7	7	14	12	12	26	17	15	10	9	6
13	9.5	7	7	14	12	12	28	20	15	10	9	6
14	10	7	11	14	12	13	26	20	15	10	9	6
15	9.5	7	2S	14	12	14	25	19	15	10	8.5	6
16	9.5	7	14	14	12	15	25	19	15	10	8.5	6
17	9.5	7	12	13	12	16	25	19	15	10	8.5	6
18	9.5	7	150	14	12	18	25	19	15	10	8.5	6
19	9.5	7	148	14	12	19	24	18	15	10	8.5	6
20	9	7	45	14	12	26	25	17	14	10	8.5	18
21	9	7	32	15	12	30	25	16	14	10	8.5	15
22	9	7	27	16	12	32	25	16	13	10	8	11
23	8.5	6.5	24	14	12	30	25	16	13	10	8	10
24	8.5	6.5	21	13	12	28	25	16	14	10	8	12
25	8.5	6.5	19	12	12	28	24	15	14	10	7.5	124
26	8.5	6.5	18	13	12	28	24	15	13	10	7	67
27	9	7	17	13	12	28	24	15	13	10	7	16
28	9	7	16	14	12	26	24	15	13	10	7	15
29	9	7	15	13	-	24	23	15	13	10	7	14
30	9	7	14	13	-	23	22	15	13	9	7	13
31	9	-	14	13	-	22	-	15	-	9	7	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	283.5		10	8.5	9.15	562						
November.....	216.0		150	6.5	7.20	428						
December.....	716		150	7	23.1	1,420						
Calendar year 1938.....	-		-	-	-	-						
January.....	435		18	12	14.0	863						
February.....	339		13	12	12.1	672						
March.....	566		32	10	18.5	1,120						
April.....	839		49	22	28.0	1,660						
May.....	536		20	15	17.3	1,080						
June.....	431		15	13	14.4	865						
July.....	325		12	9	10.5	645						
August.....	297.0		9	7	8.29	510						
September.....	435.0		124	6	14.5	863						
Water year 1938-39.....	5,378.5		124	6	14.7	10,660						

Peak discharge.- Dec. 18 (12 p.m.) 552 sec.-ft.; Sept. 20 (1:30 p.m.) 121 sec.-ft.; Sept. 25 (11 a.m.) 248 sec.-ft.; Sept. 26 (3 a.m.) 213 sec.-ft.

Little Rock Creek near Little Rock, Calif.

Location.- Water-stage recorder, lat. 34°27'40", long. 118°01'15", about a quarter of a mile upstream from Santiago Creek and 5 miles south of Little Rock, Los Angeles County. Recorder installation destroyed in storm Mar. 2, 1938. New installation placed in operation Apr. 17, 1939.

Drainage area.- 49.0 square miles.

Records available.- October 1930 to September 1939 (1937-38 and 1938-39 incomplete).

Extremes.- Maximum discharge during water year 1936-37, 1,550 second-feet Feb. 6; no flow at times.

Maximum discharge during water year 1937-38, 17,000 second-feet (estimated) Mar. 2; no flow at times.

Maximum discharge during water year 1938-39, not determined; no flow at times.

1930-39: Maximum discharge, that of Mar. 2, 1938; no flow part of each year.

Remarks.- Records furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Discharge, in second-feet, 1936-39

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.1	1.3	13	9	40	88	51	15	3.3	0.1	
2		.4	1.3	9.5	9	41	97	53	15	3.0	.1	
3		.4	1.3	8.5	9	44	83	55	14	2.6	.1	
4		.4	1.4	8	9	43	76	55	14	2.2	.1	
5		.6	1.5	7.5	15	45	75	56	13	2.1	.1	
6		.8	1.6	8.5	679	46	79	55	12	1.6	.1	
7		.8	1.6	8	468	47	78	52	12	1.6	.1	
8		1.0	1.6	7.5	122	50	76	52	11	1.5	.1	
9		1.2	1.7	7	71	52	78	51	11	1.4	.1	
10		1.3	1.7	7	56	52	82	50	10	1.4	.1	
11		1.3	1.7	7	48	55	80	48	9.5	1.2	.1	
12		1.4	1.7	7.5	47	152	80	48	9	1.2	.1	
13		1.3	1.9	8.5	161	220	52	50	8.5	1.2	.1	
14		1.4	2.8	8	661	118	94	49	8	1.2	.1	
15		1.5	11	8	301	144	115	47	8	1.2	.1	
16		1.5	21	8.5	154	470	118	47	7	1.0	.1	
17		1.3	26	9	94	238	89	45	7	.9	.1	
18		1.3	19	9	77	179	78	42	6	.7	.1	
19		1.3	14	9.5	66	130	75	39	6	.6	.1	
20		1.3	10	9.5	57	113	74	36	5.5	.5	.1	
21		1.3	9	7.5	53	101	77	34	5	.5	.1	
22		1.3	8.5	9	52	105	79	31	4.8	.5	.1	
23		1.3	7	6.5	53	89	68	29	4.6	.5	.1	
24		1.3	6.5	8.5	52	83	63	26	4.1	.5	.1	
25		1.2	7.5	8.5	51	77	63	24	3.9	.5	.1	
26												
27		1.0	7	8	42	74	64	22	4.1	.4	.1	
28		1.2	12	8	41	73	62	20	4.1	.4	0	
29		1.2	16	8.5	40	73	57	18	4.3	.4	0	
30		1.3	10	9	-	72	53	17	3.9	.2	0	
31		-	27	10	-	73	51	16	3.5	.2	0	
						78	-	16	-	.2	0	

ANTELOPE VALLEY BASIN

Discharge, in second-feet, of Little Rock Creek near Little Rock, Calif., 1936-39--Continued
1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.6	3.1	15			38	14	4.7	1.2	0.7
2		0	.7	2.8	13			37	14	4.5	1.2	.7
3		0	.7	2.6	13			36	13	4.4	1.1	.7
4		0	.7	2.6	54			35	13	4.2	1.1	.7
5		0	.7	2.4	27			34	12	4.0	1.1	.7
6		0	.7	2.2	17			35	12	3.8	1.0	.7
7		0	.8	2.1	14			32	11	3.7	1.0	.7
8		0	.8	2.1	13			31	11	3.5	1.0	.7
9		0	.8	1.9	29			31	11	3.4	1.0	.7
10		0	.8	1.7	63			30	10	3.2	1.0	.7
11		0	1.4	1.7	186			29	10	3.1	.9	.7
12		0	10	1.8	107			28	9.5	3.0	.9	.7
13		0	4.8	1.8	54			27	9	2.8	.8	.6
14		0	2.8	1.6	40			26	9	2.7	.9	.6
15		0	2.1	53	32			25	8.5	2.5	.9	.6
16		0	1.6	41	26			25	8	2.4	.8	.6
17		0	1.5	17	22			24	8	2.3	.8	.6
18		0	1.4	12	21			23	7.5	2.2	.8	.6
19		0	1.4	10	25			22	7.5	2.1	.8	.6
20		0	1.3	8.6	21			22	7	2.0	.8	.6
21		0	1.2	8	19			21	7	1.9	.8	.6
22		.2	1.2	7	20			20	6.5	1.8	.8	.6
23		.5	1.7	6.5	24			19	6.5	1.8	.8	.6
24		.5	2.8	6	29			19	6	1.7	.8	.6
25		.6	2.2	5.5	-			18	6	1.6	.8	.6
26		.6	2.6	5	-			18	5.5	1.6	.8	.6
27		.6	12	5	-			17	5.5	1.5	.8	.6
28		.8	7	5	-			16	5.5	1.4	.8	.6
29		.8	5	5.5	-			16	5	1.4	.8	.6
30		.6	3.9	5	-			15	4.9	1.3	.8	.6
31		-	3.3	5	-			15	-	1.3	.7	-

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							25	9.5	5	1.3	0.3	0.1
2							30	9.5	4.4	1.2	.3	.1
3							33	9.5	4.2	1.3	.3	.1
4							32	9.5	3.8	1.8	.4	.1
5							31	8.5	3.0	2.2	.3	.1
6							30	8.5	2.6	2.8	.4	0
7							29	8	1.4	2.4	.4	0
8							28	7.5	1.4	1.9	.4	0
9							27	7.5	.5	2.2	.4	0
10							26	7	.5	1.8	.5	0
11							25	7	.5	1.0	.4	0
12							24	7	.5	.6	.3	0
13							23	7.5	1.9	.1	.3	0
14							22	7.5	1.8	.1	.2	0
15							21	7.5	1.9	.1	.2	0
16							20	7	1.8	.1	.2	0
17							19	6.5	1.6	.1	.2	0
18							18	6	1.6	.1	.2	0
19							17	6	1.3	.1	.2	0
20							16	5.5	1.3	.1	.3	0
21							16	5.5	1.2	.1	.2	.6
22							15	5.5	1.0	.1	.2	.3
23							14	5.5	.7	.1	.2	.2
24							14	5.5	.8	.1	.2	.6
25							13	5.5	.5	.3	.3	473
26							12	5.5	.7	.4	.3	190
27							11	5.5	.6	.5	.2	22
28							10	5.5	.7	.6	.2	7
29							9	5	1.0	.2	.1	6
30							9	5	1.3	.2	.1	5.5
31							-	5	-	.3	.1	-

Discharge, in second-feet, of Little Rock Creek near Little Rock, Calif., 1936-79--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1936	0	0	0	0	0
November.....	33.0	1.5	.1	1.10	65
December.....	243.6	27	1.3	7.86	483
Calendar year 1936	1,687.9	127	0	5.17	3,740
January 1937	264.5	13	7	8.53	525
February.....	3,497	679	9	125	6,940
March.....	3,177	470	40	102	6,300
April.....	2,334	118	51	77.8	4,630
May.....	1,234	56	16	39.8	2,460
June.....	243.8	15	3.5	8.13	484
July.....	35.4	3.3	.2	1.14	70
August.....	2.6	.1	0	.08	5.2
September.....	0	0	0	0	0
Water year 1936-37	11,064.9	679	0	30.3	21,950
October 1937	0	0	0	0	0
November.....	4.8	.6	0	.16	9.5
December.....	78.5	12	.6	2.53	166
Calendar year 1937	10,871.6	679	0	29.8	21,570
January 1938	235.0	53	1.6	7.68	466
February 1-24	874	186	13	36.4	1,730
March.....	-	-	-	-	-
April.....	-	-	-	-	-
May.....	782	38	15	25.2	1,550
June.....	265.4	14	4.9	8.78	522
July.....	81.8	4.7	1.3	2.64	162
August.....	27.9	1.2	.7	.90	55
September.....	19.2	.7	.6	.64	38
Water year	-	-	-	-	-
October	-	-	-	-	-
November.....	-	-	-	-	-
December.....	-	-	-	-	-
Calendar year	-	-	-	-	-
January	-	-	-	-	-
February.....	-	-	-	-	-
March.....	-	-	-	-	-
April 1939	649	60	9	21.6	1,290
May.....	211.5	9.5	5	6.82	420
June.....	49.1	5	.5	1.64	97
July.....	24.1	2.8	.1	.76	48
August.....	8.3	.5	.1	.27	16
September.....	705.7	473	0	23.5	1,400
The period.....	-	-	-	-	3,270

OWENS LAKE BASIN

Owens River near Round Valley, Calif.

Location.- Water-stage recorder, lat. 37°26'25", long. 118°33'20", in SW $\frac{1}{4}$ sec. 10, T. 6 S., R. 31 E., just downstream from Sheep Bridge, 700 feet upstream from Rock Creek, and 2 miles north of Round Valley. Altitude, about 4,450 feet.

Drainage area.- About 450 square miles.

Records available.- August 1903 to September 1923, April 1927 to September 1939.

Average discharge.- 32 years, 227 second-feet.

Extremes.- Maximum discharge during year, 412 second-feet Oct. 7 (gage height, 2.80 feet); minimum, 1.21 second-feet Sept. 1.

1903-23, 1927-39: Maximum discharge recorded, 1,560 second-feet Dec. 11, 1937 (gage height, 4.87 feet); minimum discharge, 5.4 second-feet Feb. 13, 1923.

Remarks.- Flow affected by power development in gorge of Owens River and by diversions from tributaries for irrigation in Long Valley. Diversion also from Fock Creek to Owens River at lower end of Long Valley. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	255	235	218	198	198	195	185	170	204	155	168	121
2	247	224	199	205	194	200	195	165	204	155	158	124
3	247	222	204	198	201	208	196	166	194	146	154	126
4	247	235	211	194	205	215	192	168	178	142	164	129
5	247	235	207	199	198	205	186	165	175	142	170	131
6	275	218	204	195	196	225	182	166	178	136	176	131
7	314	222	204	194	188	247	152	167	170	135	164	131
8	286	226	204	195	196	220	158	169	161	132	152	131
9	268	235	204	199	201	210	186	168	168	132	145	133
10	260	229	204	199	207	205	186	165	156	132	145	136
11	265	222	199	202	196	198	187	164	161	136	139	136
12	255	204	196	198	201	225	189	170	170	139	137	139
13	250	204	195	195	201	255	187	167	165	136	135	139
14	255	208	189	195	196	272	198	166	165	134	131	139
15	262	218	198	195	201	265	215	174	178	132	129	142
16	278	222	210	194	194	268	194	177	185	131	129	145
17	264	232	219	195	192	268	191	168	168	131	128	145
18	260	226	216	198	198	260	187	165	168	131	128	140
19	250	222	219	198	205	260	189	160	156	131	125	145
20	246	229	228	205	207	257	189	155	156	129	126	141
21	257	222	228	207	205	234	196	145	160	135	129	150
22	237	218	212	207	205	232	196	147	155	131	129	160
23	237	208	196	196	207	226	196	150	175	135	128	154
24	237	204	205	194	212	229	194	150	178	135	132	152
25	235	212	205	192	214	234	189	145	175	137	131	152
26	231	215	201	192	212	237	182	147	165	129	125	152
27	231	215	196	194	198	221	172	145	150	129	122	150
28	233	218	198	190	205	248	165	142	148	130	126	148
29	231	212	198	196	-	215	165	155	148	129	126	145
30	235	218	198	198	-	234	167	151	150	129	125	145
31	241	-	198	198	-	195	-	199	-	126	122	-
Month	Second-foot-days			Maximum	Minimum	Mean	Run-off in acre-feet					
October.....	7,822			514	231	262	15,510					
November.....	6,602			235	204	220	15,090					
December.....	6,356			228	189	205	12,610					
Calendar year 1938.....	124,180			678	150	540	246,500					
January.....	6,110			207	190	197	12,120					
February.....	5,623			214	186	201	11,150					
March.....	7,145			272	195	250	14,170					
April.....	5,620			215	165	187	11,150					
May.....	5,055			199	142	162	9,990					
June.....	5,040			204	148	168	10,000					
July.....	4,565			201	129	141	8,660					
August.....	4,274			176	122	136	8,480					
September.....	4,205			160	121	140	8,540					
Water year 1938-39.....	66,191			514	121	187	136,500					

Peak discharge.- Oct. 7 (6 p.m.) 412 sec.-ft.

Owens River at Pleasant Valley, near Bishop, Calif.

Location.- Water-stage recorder, lat. 37°25'00", long. 118°31'40", in NW¼ sec. 24, T. 8 S., R. 31 E., 1,000 feet upstream from Owens River canal intake, 2.2 mile^s downstream from Rock Creek, and 8 miles northwest of Bishop. Altitude, about 4,350 feet.

Drainage area.- 596 square miles.

Records available.- March 1918 to September 1939.

Average discharge.- 21 years, 244 second-feet.

Extremes.- Maximum discharge during year, 366 second-feet Oct. 15 (gauge height, 3.10 feet); minimum, 152 second-feet (regulated) Sept. 1.

1918-39: Maximum discharge, 1,580 second-feet June 13, 1921 (gauge height, 8.15 feet); maximum gage height, 8.12 feet Dec. 11, 1937; minimum discharge, 5³/₈ second-feet (regulated) Aug. 25, 1931.

Remarks.- Flow diverted from tributaries for irrigation and regulated by operation of power plant upstream from station. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	312	313	275	272	261	261	259	240	318	211	211	168
2	311	294	269	279	252	262	243	238	310	213	202	158
3	310	296	275	270	273	266	247	237	297	207	197	173
4	310	304	291	258	276	262	245	245	268	205	207	164
5	308	301	284	302	268	264	239	240	257	201	211	168
6	322	284	279	275	276	282	235	237	249	205	220	168
7	345	292	281	266	274	293	234	243	238	199	199	171
8	351	296	279	275	268	278	238	252	228	188	188	171
9	325	301	278	266	262	268	239	255	225	182	179	175
10	317	296	278	266	284	264	241	257	228	188	178	177
11	314	277	272	283	269	257	246	250	244	207	174	179
12	311	280	276	283	273	280	247	255	251	216	172	181
13	309	274	275	280	276	322	245	240	246	210	170	181
14	311	279	257	278	268	326	261	235	253	203	165	183
15	342	289	282	275	270	318	265	243	263	184	163	185
16	328	294	292	266	260	316	249	249	265	178	161	187
17	320	288	301	270	254	312	244	230	245	184	160	187
18	319	285	301	270	268	307	242	228	239	184	168	185
19	319	287	304	270	276	297	245	211	229	183	156	190
20	317	288	316	279	281	288	250	220	224	183	159	187
21	315	287	318	291	271	278	257	211	218	184	163	186
22	313	282	299	288	269	277	264	211	210	183	159	208
23	313	279	267	270	274	269	231	213	224	186	162	201
24	313	282	289	261	279	271	255	211	228	186	166	199
25	309	276	289	261	283	264	250	207	228	189	165	201
26	307	278	282	261	261	278	240	207	216	184	158	206
27	309	278	279	264	267	273	231	207	206	184	155	203
28	309	276	277	265	267	297	230	232	206	195	158	196
29	309	273	274	270	-	271	231	274	210	209	158	192
30	309	278	272	276	-	262	233	325	210	232	157	192
31	323	-	272	270	-	262	-	327	-	221	155	-
Month	Second-foot-days											
October.....	9,810	345	307	316	19,460							
November.....	6,577	313	260	286	17,010							
December.....	6,783	318	257	283	17,420							
Calendar year 1938.....	169,961	1,240	185	466	337,200							
January.....	8,492	302	255	274	16,840							
February.....	7,859	284	252	270	14,900							
March.....	8,597	326	251	231	17,250							
April.....	7,334	265	230	244	14,550							
May.....	7,428	327	207	240	14,730							
June.....	7,233	318	206	241	14,350							
July.....	6,063	232	178	196	12,070							
August.....	5,382	220	155	174	10,680							
September.....	6,520	208	156	184	10,960							
Water year 1938-39.....	90,898	345	156	249	180,300							

Peak discharge.- Oct. 15 (4 a.m.) 366 sec.-ft.

Owens River near Big Pine, Calif.

Location.- Water-stage recorder, lat. 37°01'45", long. 118°13'30", in NE $\frac{1}{4}$ sec. 2, T. 11 S., R. 34 E., at Charlies Butte, 11 miles southeast of Big Pine. Altitude, about 3,850 feet.

Drainage area.- 1,930 square miles.

Records available.- September 1906 to September 1939.

Average discharge.- 33 years, 342 second-feet.

Extremes.- Maximum discharge during year, 768 second-feet Oct. 18 (gauge height, 4.97 feet); minimum, 15 second-feet Aug. 18-21.
1906-39: Maximum discharge, about 3,220 second-feet Jan. 26, 1914 (gauge height, 11.2 feet); no flow Jan. 9-13, 21-23, 1937.

Remarks.- Diversions above station from both main stream and tributaries. Storage in Tinemaha Reservoir, which has a capacity of 16,600 acre-feet. Intake of Los Angeles aqueduct is 4 miles downstream from station. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	266	712	555	513	527	507	497	158	423	207	366	179
2	264	696	553	512	527	507	497	265	447	208	356	408
3	262	689	553	512	527	507	495	425	436	266	325	308
4	299	675	552	512	527	506	439	559	423	277	315	82
5	379	658	551	517	527	506	379	607	410	255	334	82
6	420	650	550	518	527	505	376	446	365	248	363	64
7	472	638	549	520	527	505	376	467	348	246	370	76
8	513	627	548	523	526	503	376	560	337	233	344	85
9	518	622	547	523	526	505	375	556	323	225	323	82
10	527	587	547	524	525	505	345	547	332	232	316	92
11	627	555	547	525	525	505	314	544	355	236	306	85
12	525	548	547	525	524	505	314	541	351	245	292	76
13	525	550	547	529	524	503	315	536	351	246	297	178
14	525	550	546	529	522	503	317	533	353	249	298	178
15	527	490	546	533	522	536	318	527	353	222	262	164
16	529	414	546	533	521	568	321	519	355	214	140	438
17	527	422	545	533	520	567	324	513	344	203	16	478
18	665	438	547	533	518	564	325	510	334	203	15	30
19	763	470	547	533	518	562	325	504	309	207	15	30
20	760	506	547	533	517	562	325	499	289	211	15	30
21	752	554	547	533	516	560	224	494	267	207	15	30
22	748	556	547	533	516	554	17	489	250	216	40	30
23	743	556	547	533	516	552	17	480	240	212	203	30
24	741	556	547	533	514	547	17	449	262	210	348	30
25	733	556	546	533	512	545	17	463	263	210	477	30
26	729	556	545	532	511	539	17	447	263	216	499	30
27	725	556	544	532	511	509	17	430	256	216	424	40
28	730	555	544	532	511	490	17	412	266	211	263	183
29	722	556	530	531	-	487	17	368	256	210	74	522
30	718	555	513	531	-	493	20	392	260	315	74	597
31	713	-	513	531	-	495	-	396	-	300	76	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	17,887	763	262	576	35,440
November.....	17,027	712	414	568	33,770
December.....	16,893	555	513	545	33,510
Calendar year 1938.....	242,280	1,310	160	664	480,500
January.....	16,334	533	512	527	32,400
February.....	14,584	527	511	521	28,930
March.....	16,192	563	480	522	32,120
April.....	7,734	497	17	258	15,348
May.....	14,681	607	158	473	29,080
June.....	9,941	447	240	331	19,720
July.....	7,672	380	201	247	15,220
August.....	7,530	499	15	243	14,940
September.....	4,652	597	30	155	9,230
Water year 1938-39.....	151,087	763	15	414	299,700

Peak discharge.- Oct. 18 (8:30 p.m.) 768 sec.-ft.

Rock Creek at Sherwin Hill, near Bishop, Calif.

Location.- Water-stage recorder, lat. 37°28'45", long. 118°36'05", in SW¼ sec. 29, T. 5 S., R. 31 E., at Sherwin Hill, 3 miles upstream from Pine Creek, and 14 miles northwest of Bishop. Altitude, about 4,900 feet.

Drainage area.- 51.7 square miles.

Records available.- August 1922 to September 1939.

Average discharge.- 17 years, 22.9 second-feet.

Extremes.- Maximum discharge during year, 47 second-feet May 1 (gage height, 1.52 feet); minimum, 11 second-feet Sept. 11-13, 17-21, 1922-39; Maximum discharge recorded, 229 second-feet June 27, 1938 (gage height, 4.12 feet); minimum discharge, 1.6 second-feet Dec. 1, 1936.

Remarks.- Flow diverted at elevation of about 7,300 feet for irrigation in Little Round Valley or for discharge into Owens River at lower end of Long Valley. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	26	24	23	16	20	23	45	43	26	29	14
2	28	26	24	22	15	20	25	40	40	26	27	14
3	26	26	25	21	29	19	24	36	36	25	26	13
4	27	27	25	22	27	19	25	35	34	25	25	13
5	26	26	25	20	25	19	26	34	33	23	25	13
6	28	26	25	24	23	20	27	33	31	22	25	13
7	29	25	25	19	21	19	28	30	26	21	23	13
8	29	26	25	23	22	19	31	31	24	21	22	12
9	28	25	25	23	20	20	32	33	22	21	21	12
10	27	25	24	23	26	20	33	34	27	21	21	12
11	27	23	23	22	25	20	35	34	31	25	20	11
12	28	19	21	22	25	21	37	33	30	23	19	11
13	28	26	21	22	24	20	36	30	29	23	18	11
14	28	27	23	23	24	20	35	28	34	22	18	12
15	33	28	25	23	23	21	33	27	35	22	18	12
16	30	26	25	21	21	21	33	27	33	21	17	12
17	30	26	24	22	21	22	33	25	29	21	17	11
18	30	25	24	23	21	23	35	24	26	20	17	11
19	29	26	24	23	22	23	37	24	23	20	17	11
20	29	25	24	22	21	22	40	24	21	20	17	11
21	28	21	24	23	20	23	43	23	20	20	19	11
22	28	21	22	22	21	23	45	23	20	21	18	12
23	28	22	21	19	21	23	42	23	21	22	19	13
24	27	24	24	18	20	22	40	22	24	23	20	12
25	27	24	24	21	20	23	39	21	26	23	19	13
26	27	24	23	21	19	24	40	21	25	23	18	15
27	26	24	23	22	19	23	41	21	24	23	17	15
28	26	24	23	20	20	23	42	23	24	23	16	15
29	26	24	23	21	-	22	45	31	25	25	16	15
30	25	24	23	23	-	23	44	35	26	28	16	15
31	26	-	23	19	-	22	-	43	-	29	15	-
Month												
October.....	Second-foot-days					Maximum	Minimum	Mean	Run-off in acre-feet			
October.....	865					33	25	27.9	1,720			
November.....	741					28	19	24.7	1,470			
December.....	734					25	21	23.7	1,460			
Calendar year 1938.....	19,520					210	10	53.5	38,720			
January.....	672					24	18	21.7	1,350			
February.....	609					29	15	21.8	1,210			
March.....	659					24	19	21.3	1,310			
April.....	1,045					45	25	34.9	2,070			
May.....	915					45	21	29.5	1,810			
June.....	842					43	20	28.1	1,670			
July.....	704					29	20	22.7	1,400			
August.....	615					29	15	19.8	1,220			
September.....	378					15	11	12.6	750			
Water year 1938-39.....	8,778					45	11	24.0	17,420			

Peak discharge.- May 1 (2 a.m.) 47 sec.-ft.

Rock Creek near Round Valley, Calif.

Location.- Water-stage recorder, lat. 37°26'25", long. 118°34'15", in SE $\frac{1}{4}$ sec. 9, T. 6 S., R. 31 E., 0.1 mile upstream from Pine Creek and 2 miles northwest of Round Valley. Altitude, about 4,450 feet.

Drainage area.- About 96 square miles.

Records available.- August 1903 to September 1923, April 1930 to September 1939.

Average discharge.- 29 years, 36.2 second-feet.

Extremes.- Maximum discharge during year, 52 second-feet Oct. 6 (gage height, 1.42 feet); minimum, 14 second-feet Aug. 19, Sept. 1-3.
1903-23, 1930-39: Maximum discharge recorded, 360 second-feet Jan. 25, 1914 (gage height, 5.0 feet, at former gage); minimum discharge, 7.5 second-feet Sept. 16, 1933.

Remarks.- Water diverted for irrigation above station; also diverted at times from Rock Creek to Owens River at elevation of about 7,300 feet. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	37	35	32	28	28	25	38	32	20	24	14
2	30	36	34	32	26	29	25	38	27	21	24	14
3	28	37	38	31	36	29	24	27	28	20	23	14
4	25	37	38	31	35	27	23	28	28	21	24	15
5	27	37	37	36	34	28	21	28	26	21	23	15
6	38	36	37	37	37	29	20	30	24	21	23	16
7	46	37	37	31	33	29	21	33	21	19	20	16
8	3e	37	37	34	34	28	23	33	17	19	17	15
9	38	37	37	34	31	29	23	35	16	19	17	15
10	36	37	37	33	38	29	25	36	20	20	18	15
11	35	36	34	33	36	28	28	36	23	21	20	16
12	35	35	32	32	36	28	28	36	31	22	19	16
13	35	37	30	31	35	29	28	34	24	23	19	16
14	35	37	31	32	35	29	29	32	31	19	19	16
15	41	40	35	33	36	29	30	23	32	19	17	16
16	38	35	34	31	34	28	28	20	34	18	17	16
17	38	38	34	33	31	28	26	20	30	18	16	16
18	38	38	34	32	32	28	28	19	27	19	15	16
19	38	36	34	33	35	28	30	19	26	19	14	15
20	38	35	34	33	31	28	32	19	24	19	15	15
21	37	38	35	34	30	27	36	22	18	17	16	16
22	37	38	32	34	31	27	40	22	17	17	16	16
23	37	35	31	30	31	27	41	24	18	19	17	17
24	37	35	34	28	30	27	40	24	21	27	17	17
25	36	36	34	28	30	26	39	24	21	27	16	17
26	36	36	32	32	29	26	35	20	17	21	16	17
27	36	36	33	33	28	26	33	18	21	21	15	18
28	36	36	32	31	30	26	34	22	21	21	16	18
29	36	36	32	33	-	26	35	27	21	27	16	18
30	36	35	32	34	-	26	34	29	20	27	15	18
31	37	-	32	30	-	25	-	30	-	27	15	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,108	41	25	35.7	2,190
November.....	1,099	40	33	36.6	2,180
December.....	1,054	38	28	34.0	2,090
Calendar year 1938.....	21,953	261	9.5	60.1	43,550
January.....	1,008	36	28	32.5	2,000
February.....	910	38	26	32.5	1,800
March.....	859	30	25	27.7	1,700
April.....	864	41	20	29.5	1,750
May.....	946	36	18	27.3	1,680
June.....	716	34	16	23.9	1,420
July.....	624	24	17	20.1	1,240
August.....	558	24	14	18.0	1,110
September.....	479	18	14	16.0	950
Water year 1938-39.....	10,143	41	14	27.8	20,110

Peak discharge.- Oct. 6 (12 m.) 52 sec.-ft.

Pine Creek at division box, near Bishop, Calif.

Location.- Water-stage recorder and Parshall flume, lat. 37°24'55", long. 118°37'10", in NW 1/4 sec. 19, T. 6 S., R. 31 E., a quarter of a mile upstream from division box and from forks of creek, 4 miles west of Round Valley, and 13 miles northwest of Bishop. Parshall flume installed Nov. 4, 1938. Altitude, about 5,250 feet.

Drainage area.- 37.9 square miles.

Records available.- October 1921 to September 1939.

Average discharge.- 18 years, 40.3 second-feet.

Extremes.- Maximum discharge during year, 169 second-feet May 29 (gage height, 3.33 feet); minimum, 14 second-feet Feb. 2.
1922-39: Maximum discharge, 350 second-feet July 21, 1936 (gage height, 3.58 feet); minimum, 10 second-feet Jan. 8, 1930, Jan. 21, 1935.

Remarks.- No diversions. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	32	28	25	21	22	25	58	103	61	49	26
2	42	30	28	25	21	23	26	61	96	53	46	26
3	40	32	29	24	24	23	26	69	94	53	45	26
4	40	34	28	24	23	22	26	74	78	53	44	25
5	40	34	28	25	23	22	27	71	65	53	45	25
6	40	34	28	25	23	22	29	66	58	54	46	26
7	40	34	26	24	23	22	31	67	58	53	43	25
8	40	33	28	25	23	22	34	78	63	57	42	25
9	40	33	27	24	23	23	39	82	75	57	40	24
10	39	31	27	24	24	23	45	73	96	67	39	24
11	39	31	27	25	24	23	48	62	102	57	38	24
12	39	31	27	25	24	23	47	50	94	57	36	24
13	39	32	27	25	23	23	43	48	96	57	36	24
14	39	32	27	24	23	23	39	44	94	57	35	24
15	39	32	27	24	23	23	35	43	84	43	34	24
16	39	30	26	24	22	23	33	48	66	47	33	23
17	39	30	26	24	23	24	35	55	63	47	33	23
18	39	30	26	24	23	24	41	61	59	44	32	23
19	39	30	26	24	23	24	48	53	58	47	31	23
20	39	30	26	24	23	24	56	54	59	47	33	23
21	39	28	26	24	23	24	63	50	62	47	34	23
22	39	28	25	24	23	24	63	47	66	47	33	23
23	39	28	25	23	23	24	48	44	68	47	33	23
24	38	28	25	23	23	24	42	42	68	47	33	23
25	38	28	25	24	23	24	41	43	63	47	31	23
26	36	28	25	24	23	24	41	52	62	47	31	23
27	37	28	25	24	22	24	46	72	62	47	30	23
28	37	28	25	24	22	24	58	97	64	47	29	23
29	36	28	25	24	-	25	60	124	65	57	29	23
30	35	28	25	24	-	25	55	140	63	67	28	27
31	34	-	25	23	-	25	-	128	-	54	27	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,205	44	34	38.9	2,390
November.....	915	34	28	30.5	1,810
December.....	819	28	25	26.4	1,620
Calendar year 1938.....	29,244	513	17	80.1	57,990
January.....	749	25	23	24.2	1,490
February.....	641	24	21	22.9	1,270
March.....	725	25	22	23.4	1,440
April.....	1,250	53	25	41.7	2,420
May.....	3,055	140	42	66.3	4,080
June.....	2,208	103	58	73.6	4,350
July.....	1,529	61	42	49.3	3,030
August.....	1,118	49	27	36.1	2,220
September.....	747	29	23	24.9	1,480
Water year 1938-39.....	13,961	140	21	38.2	27,690

Peak discharge.- May 29 (11:30 p.m.) 169 sec.-ft.

Pine Creek near Round Valley, Calif.

Location.- Water-stage recorder, lat. 37°26'10", long. 118°34'10", in SE¼ sec. 9, T. 6 S., R. 31 E., 800 feet upstream from confluence with Rock Creek and 2 miles northwest of town of Round Valley. Altitude, about 4,450 feet.

Drainage area.- About 58 square miles.

Records available.- August 1903 to September 1923, April 1930 to September 1939.

Average discharge.- 29 years, 22.5 second-feet.

Extremes.- Maximum discharge during year, 114 second-feet May 30 (gage height, 2.25 feet); minimum, 0.6 second-foot Aug. 18, 1903-23, 1930-39; Maximum discharge, 442 second-feet June 27, 1938 (gage height, 4.00 feet); minimum, 0.1 second-foot July 30, Aug. 13, 1920, May 23, 1930, many days in 1931, Aug. 25, 1934.

Remarks.- Water diverted for irrigation upstream from station. Records of daily discharge furnished by city of Los Angeles.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	20	10	16	16	13	5.5	12	71	12	16	2.5
2	15	21	10	16	16	13	4.7	14	64	12	12	3.0
3	15	21	12	16	16	13	5	23	60	14	10	3.0
4	15	22	16	16	16	12	4.9	28	47	14	11	2.4
5	14	21	16	23	16	12	5	24	36	13	11	2.2
6	15	20	16	21	16	13	5.5	21	24	10	12	1.4
7	15	20	17	17	16	12	4.2	21	12	8.5	11	2.1
8	17	19	16	17	16	10	3.9	27	12	7	4.7	2.8
9	17	18	16	16	16	10	4.6	34	12	4.6	3.2	2.6
10	17	17	16	17	16	10	7	37	20	5	2.1	3.0
11	16	13	16	18	16	10	12	33	30	5	1.4	2.8
12	16	12	16	17	16	10	12	24	26	8	2.2	2.7
13	16	14	15	17	16	10	10	17	34	9	2.8	3.3
14	16	16	15	16	16	9	9.5	14	40	8	2.1	3.8
15	18	17	17	16	13	9	7	10	34	6.5	1.8	3.5
16	15	17	17	16	12	6.6	4.6	9.5	25	6.5	1.5	4.2
17	15	17	15	16	13	5	4.7	15	21	7.5	1.4	4.4
18	18	18	14	16	13	4.6	4.7	17	16	8	1.8	4.7
19	22	19	15	16	14	4.6	6	13	16	7.5	1.5	4.7
20	21	19	16	16	14	4.7	9	14	13	7.5	2.8	6.5
21	20	20	18	18	14	4.6	11	12	12	9	4.2	4.0
22	20	20	19	17	14	3.7	10	11	14	8	5	3.7
23	20	20	16	16	14	3.0	8	9	15	5.5	3.0	3.7
24	20	20	18	16	14	2.8	6	8	14	5.5	3.7	4.0
25	20	20	18	16	13	2.7	4.7	10	14	4.6	3.0	5
26	20	20	18	16	13	2.8	4.7	12	9.5	2.8	3.7	6
27	20	20	18	16	12	5.5	4.9	16	9	2.8	3.3	5.5
28	20	16	18	16	12	5.8	7	56	11	3.0	2.8	5.5
29	20	11	17	16	-	4.6	11	80	13	6	2.8	4.7
30	20	10	16	16	-	5.5	10	88	12	13	2.6	4.7
31	20	-	16	16	-	6	-	84	-	19	2.8	-
Month												
	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	547		22	14	17.6	1,080						
November.....	538		22	10	17.9	1,070						
December.....	493		19	10	15.9	978						
Calendar year 1938.....	22,175.3		395	2.4	60.8	43,980						
January.....	520		23	16	16.8	1,080						
February.....	408		16	12	14.6	809						
March.....	237.1		13	2.7	7.65	470						
April.....	207.1		12	3.9	6.90	411						
May.....	793.5		88	9.5	25.6	1,570						
June.....	732.5		71	9	24.6	1,460						
July.....	252.8		19	2.8	3.15	501						
August.....	149.1		16	1.4	4.81	298						
September.....	111.3		6	1.4	3.71	221						
Water year 1938-39.....	4,995.4		88	1.4	13.7	9,900						

Peak discharge.- May 30 (4 a.m.) 114 sec.-ft.

Mono Lake near Mono Lake, Calif.

Location.- Staff gage, lat. 38°00', long. 119°08', in NE¼ sec. 31, T. 2 N., R. 26 E., about a mile south of Mono Lake post office. Zero of gage is 6,390.66 feet above mean sea level (general adjustment of 1929).

Records available.- June 1912 to September 1939. Records prior to September 1934 in Water-Supply Paper 765.

Extremes.- 1912-39: Maximum stage, 37.4 feet July 18, 1919; minimum, 23.8 feet Nov. 18, 1935.

Gage height, in feet, water year October 1933 to September 1939

Date	U. S. Forest Service	City of Los Angeles	Date	U. S. Forest Service	City of Los Angeles
Oct. 3	-	27.4	May 3	-	28.2
10	-	27.4	9	-	28.2
18	-	27.4	16	28.2	28.1
19	27.4	-	25	-	28.0
25	-	27.4	31	-	28.0
31	-	27.4			
Nov. 7	-	27.4	June 6	-	28.0
14	-	27.3	12	-	28.0
21	-	27.4	17	28.1	-
30	-	27.4	19	-	27.9
			27	-	27.9
Dec. 5	-	27.4	July 1	-	27.9
12	-	27.5	6	-	27.9
19	-	27.5	17	-	27.8
27	-	27.6	19	27.8	-
			24	-	27.7
Jan. 3	-	27.6	Aug. 2	-	27.7
9	-	27.7	4	-	27.7
17	-	27.7	7	-	27.6
23	-	27.8	10	-	27.6
31	-	27.6	14	-	27.6
Feb. 9	-	27.8	22	27.6	27.5
14	-	27.8	31	-	27.4
20	-	27.6			
27	-	27.9	Sept. 5	-	27.2
Mar. 10	-	27.9	11	-	27.2
18	-	27.9	19	27.1	27.0
21	-	28.0	26	-	27.0
29	-	28.0			
Apr. 1	-	28.1			
4	-	28.1			
11	-	28.1			
15	28.2	-			
18	-	28.1			
26	-	28.2			

WALKER LAKE BASIN

Walker Lake near Hawthorne, Nev.

Location.- Bench mark at United States naval ammunition depot, lat. 38°35', long. 118°42', in NE¼ sec. 2, T. 8 N., R. 29 E., 6 miles northwest of Hawthorne. Bench mark is 4,053.41 feet above mean sea level (general adjustment of 1912).

Records available.- August 1928 to September 1939. Occasional readings prior to August 1928.

Extremes.- 1928-39: Maximum elevation observed, 4,051.8 feet Mar. 13, 1928 (Indian Service); minimum observed, 4,019.2 feet Jan. 7, 1938.

Lake elevation, Sept. 27, 1908, 4,078.0 feet, observed by U. S. Coast and Geodetic Survey (general adjustment of 1912).

Remarks.- Elevations determined by spirit leveling. Records furnished by Navy Department.

Elevation, in feet, above mean sea level, water year 1938-39

Oct. 7	4,024.7	Apr. 5	4,024.8
Nov. 10	4,024.3	May 5	4,024.9
Dec. 14	4,024.5	June 12	4,024.6
Jan. 9	4,024.6	July 7	4,024.2
Feb. 10	4,024.8	Aug. 20	4,023.6
Mar. 8	4,024.6		

WALKER LAKE BASIN

Bridgeport Reservoir near Bridgeport, Calif.

Location.- Elevations determined at Bridgeport Dam, lat. 36°19'30", long. 119°12'50", in SE¼ Sec. 34, T. 6 N., R. 25 E., 4½ miles north of Bridgeport. Datum of gage is at mean sea level.

Drainage area.- 362 square miles.

Records available.- October 1931 to September 1939, in reports of Geological Survey. March 1926 to September 1931, at office of Walker River Irrigation District.

Extremes.- Maximum contents during year, 42,460 acre-feet Mar. 22 (elevation, 6,460.0 feet); minimum, 5,840 acre-feet Sept. 22-26 (elevation, 6,439.5 feet).
1926-39: Maximum contents, 44,580 acre-feet June 12, 1938 (elevation, 6,460.7 feet); no storage during fall of 1929, 1930.

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began Dec. 8, 1923; dam completed in November 1924. Capacity 42,460 acre-feet between elevations 6,412 feet (sill of outlet gate) and 6,460 feet (crest of spillway) above mean sea level. No dead storage. Water is used for irrigation on lands of Walker River Irrigation District. Elevations and capacity table furnished by Walker River Irrigation District. Gage read about 8 a.m. daily; contents are as of that time.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Furnished by Walker River Irrigation District; computed from project map)

6,412	0	6,428	697	6,440	6,240	6,453	24,660
6,417	9	6,430	1,130	6,443	9,100	6,455	29,160
6,420	75	6,433	2,050	6,445	11,380	6,457	34,110
6,423	213	6,435	2,920	6,448	15,470	6,460	42,460
6,425	334	6,437	4,050	6,450	18,780		

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30,730	34,110	32,200	31,090	32,330	36,900	40,710	38,980	32,590	26,090	16,580	9,280
2	30,360	34,110	32,080	31,090	32,460	37,180	40,710	38,430	31,960	25,760	16,420	8,950
3	30,120	34,110	31,950	30,970	32,720	37,320	40,560	36,150	31,700	25,430	16,260	8,690
4	29,880	34,110	31,820	30,970	32,840	37,460	40,710	37,730	31,450	25,100	16,110	8,440
5	29,880	34,510	31,700	30,970	32,960	37,590	40,710	37,590	31,210	24,660	15,870	8,130
6	29,880	34,640	31,570	31,090	32,960	37,570	40,710	37,460	30,970	24,240	15,630	7,890
7	30,000	34,770	31,530	31,090	33,090	38,010	40,710	37,180	30,860	23,720	15,400	7,700
8	29,760	34,770	31,210	31,090	33,220	38,150	40,860	36,760	30,730	23,410	15,220	7,410
9	29,520	34,640	30,970	31,090	33,220	38,290	40,710	36,500	30,480	23,000	15,240	7,310
10	29,280	34,510	30,730	31,090	33,350	38,570	40,710	36,100	30,240	22,580	15,170	7,170
11	29,640	34,380	30,850	31,090	33,480	38,840	40,860	35,700	30,120	22,380	14,960	7,030
12	29,880	34,640	30,970	31,090	33,480	38,980	40,860	35,440	30,120	22,190	14,800	6,940
13	30,120	34,900	31,090	31,090	33,600	39,120	40,860	35,700	29,880	21,800	14,580	6,770
14	30,360	34,770	30,970	31,090	33,730	39,260	40,710	35,440	29,880	21,400	14,430	6,680
15	30,730	34,640	30,850	30,970	33,980	39,540	40,710	35,170	29,760	21,010	14,290	6,540
16	31,090	34,510	30,850	30,970	34,240	39,830	40,710	35,170	29,760	20,620	13,920	6,420
17	31,330	34,380	30,970	30,850	34,380	40,120	40,710	35,040	29,280	20,250	13,580	6,280
18	31,570	34,110	30,970	30,850	34,640	40,560	40,710	35,170	29,160	20,070	13,380	6,200
19	31,820	33,860	30,970	30,850	34,900	41,000	40,710	35,040	28,930	19,880	13,170	6,080
20	32,080	33,860	31,090	30,730	35,170	41,290	40,710	34,900	28,700	19,520	12,970	6,000
21	32,330	33,730	31,090	30,730	35,440	41,860	40,710	34,640	28,700	19,150	12,500	5,920
22	32,460	33,600	31,090	30,850	35,570	42,460	40,560	34,380	28,580	18,870	12,200	5,800
23	32,720	33,460	31,090	30,850	35,830	42,520	40,560	34,110	28,470	18,780	12,000	5,840
24	32,960	33,350	31,090	30,970	35,960	42,170	40,560	33,860	28,360	18,700	11,630	5,840
25	33,350	33,090	30,970	31,090	36,230	42,170	40,420	33,860	28,240	18,520	11,320	5,840
26	33,480	32,960	30,970	31,210	36,500	41,860	40,420	33,730	28,010	18,180	11,080	5,840
27	33,600	32,720	31,090	31,330	36,630	41,580	40,120	33,730	27,580	17,920	10,790	5,860
28	33,860	32,460	31,090	31,570	36,760	41,000	39,830	33,480	27,200	17,580	10,500	5,880
29	34,110	32,330	31,090	31,820	-	41,000	39,400	33,090	26,980	17,320	10,140	5,920
30	34,110	32,330	31,090	31,950	-	40,710	39,260	32,960	26,530	17,060	9,870	5,920
31	34,110	-	31,090	32,200	-	40,710	-	33,090	-	16,900	9,600	-

Monthly elevation, and contents, water year October 1938 to September 1939

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1.....	6,455.65	30,730	+3,380
Nov. 1.....	6,457.0	34,110	-1,910
Dec. 1.....	6,456.25	32,200	-1,110
Calendar year 1938.....	-	-	+970
Jan. 1.....	6,455.8	31,090	+1,240
Feb. 1.....	6,456.3	32,330	+4,570
Mar. 1.....	6,458.05	36,900	+3,810
Apr. 1.....	6,459.4	40,710	-1,730
May 1.....	6,458.8	38,980	-6,390
June 1.....	6,456.4	32,590	-6,500
July 1.....	6,463.65	26,090	-9,510
Aug. 1.....	6,448.7	16,580	-7,320
Sept. 1.....	6,443.15	9,260	-3,340
Oct. 1.....	6,459.6	8,920	-
Water year 1938-39.....	-	-	-24,810

East Walker River near Bridgeport, Calif.

Location.- Water-stage recorder, lat. 38°19'40", long. 119°12'50", in SW¼NE¼ sec. 34, T. 6 N., R. 25 E., 1,500 feet downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles upstream from Sweetwater Creek. Datum of gage raised 2.34 feet Jan. 1, 1939. Prior to May 26, 1939, staff gage was used at same location.

Drainage area.- 362 square miles.

Records available.- October 1921 to September 1939. July 1911 to September 1914, at site 1½ miles upstream.

Average discharge.- 16 years (1922-24, 1925-39), 119 second-feet.

Extremes.- Maximum discharge observed during year, 297 second-feet Mar. 24-28 (gage height, 1.76 feet); minimum observed, 9 second-feet Jan. 25 to Mar. 19.
1921-39: Maximum discharge observed, 1,220 second-feet June 12, 1938 (gage height, 6.74 feet, former datum); minimum observed, 2 second-feet many days when reservoir gates were closed.

Remarks.- Records good. Discharge for period Oct. 1 to May 26 computed from staff-gage readings made once daily. Flow affected by irrigation of meadow and pasture lands near Bridgeport; flow regulated by Bridgeport Reservoir (capacity, 42,460 acre-feet). Gage-height record furnished by Walker River Irrigation District.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	245	88	197	96	9	9	232	216	242	242	179	168
2	245	88	197	96	9	9	220	245	242	245	161	165
3	245	88	197	96	9	9	208	245	242	242	142	165
4	245	88	197	96	9	9	209	245	238	242	132	150
5	245	88	197	96	9	9	174	245	225	240	123	142
6	245	88	197	96	9	9	174	232	206	240	123	142
7	245	88	197	96	9	9	174	220	201	238	123	142
8	245	88	197	96	9	9	174	220	201	238	112	110
9	245	88	197	96	9	9	174	232	201	238	108	91
10	192	88	163	96	9	9	174	245	201	235	108	91
11	80	105	96	96	9	9	174	245	201	235	107	91
12	80	159	96	96	9	9	174	208	201	235	107	91
13	80	174	96	96	9	9	174	174	153	235	107	91
14	80	174	96	96	9	9	142	174	170	235	107	91
15	58	174	96	96	9	9	142	174	170	223	119	91
16	14	174	96	96	9	9	136	174	170	216	160	91
17	14	161	96	96	9	9	136	153	170	211	148	91
18	14	197	96	96	9	9	136	132	170	161	148	91
19	14	197	96	96	9	9	136	132	163	185	163	80
20	14	197	96	96	9	38	105	187	142	190	179	67
21	14	197	96	96	9	110	105	181	142	188	176	64
22	14	197	96	96	9	135	136	179	142	155	176	58
23	14	197	96	66	9	197	146	176	142	125	176	54
24	27	197	96	12	9	226	146	174	142	127	176	52
25	80	197	96	9	9	297	165	174	142	135	176	52
26	31	197	96	9	9	297	185	172	159	157	174	52
27	14	197	96	9	9	297	185	174	201	176	174	52
28	14	197	96	9	9	297	185	201	179	174	174	52
29	39	197	96	9	-	273	185	242	204	179	172	52
30	85	197	96	9	-	245	185	242	235	179	172	52
31	88	-	96	9	-	245	-	238	-	179	170	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,268	245	14	105	6,480
November.....	4,582	197	58	153	9,090
December.....	3,952	197	96	127	7,540
Calendar year 1938.....	131,751	1,220	9	361	261,300
January.....	2,253	96	9	72.7	4,470
February.....	252	9	9	9.0	500
March.....	2,625	297	9	91.2	5,610
April.....	4,990	232	105	166	9,900
May.....	6,221	245	132	201	12,340
June.....	5,649	242	142	188	11,200
July.....	6,328	245	125	204	12,550
August.....	4,562	179	107	147	9,050
September.....	2,779	163	52	92.6	5,510
Water year 1938-39.....	47,664	297	9	131	94,540

West Walker River below East Fork, near Coleville, Calif.

Location.- Water-stage recorder, lat. 36°22'45", long. 119°27'00", in SE½ sec. 9, T. 6 N., R. 23 E., 75 feet upstream from bridge on U. S. Highway 395, 200 feet downstream from East Fork, and 13 miles southeast of Coleville.

Drainage area.- 182 square miles.

Records available.- April 1938 to September 1939. October 1902 to July 1908, at site 9½ miles downstream. March 1909 to August 1910 and June 1915 to March 1938 at site 10 miles downstream (published as West Walker River near Coleville, Calif.); records practically equivalent.

Extremes.- Maximum discharge during year, 944 second-feet May 29 (gage height, 2.94 feet); minimum, 34 second-feet Sept. 1.
1938-39: Maximum discharge, 2,490 second-feet June 9, 1938 (gage height, 4.90 feet), from rating curve extended above 1,600 second-feet; minimum, that of Sept. 1, 1939.
Maximum discharge known, 5,800 second-feet Dec. 11, 1937, by slope-area method.

Remarks.- Records good except those for periods of ice effect, Dec. 14 to Mar. 16, Mar. 18-23, and those for periods of missing gage heights, Oct. 6, 29-30, Nov. 13-15, which were computed on basis of weather records and are fair. Station is above all diversions except a few small ranch ditches. Very slight regulation from storage in Poor Lake Reservoir (capacity unknown), 7 miles upstream. Gage-height graph and two discharge measurements furnished by Walker River Irrigation District.

Rating table, water year 1938-39 (gage height, in feet, and discharge, in second-feet)

0.1	33	0.4	60	1.0	172	1.6	355	2.3	620
.2	40	.6	88	1.2	226	1.8	426	2.6	760
.3	49	.8	126	1.4	288	2.0	501	3.0	980

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	116	90	60			60	232	560	584	206	64	35
2	104	97	61			60	321	544	536	193	58	36
3	108	106	66			60	298	564	520	182	53	37
4	118	106	70			50	321	584	462	165	56	38
5	110	97	68			60	348	552	390	153	56	38
6	111	78	65			60	383	520	352	141	53	38
7	112	84	68			60	430	524	339	135	51	38
8	112	88	68			60	493	584	352	135	50	39
9	112	78	68			60	505	638	383	133	50	39
10	104	79	66			60	482	600	444	135	51	38
11												
12	94	70	58			65	536	497	478	135	50	38
13	90	69	54			65	532	441	452	130	47	44
14	88	65	60			65	490	426	415	112	45	43
15	190	78	65			65	335	430	412	102	44	44
16						65	348	490	408	99	47	47
17	150	80	65			65	335	493	390	93	44	45
18	130	72	70			68	369	456	308	88	42	44
19	124	79	70			75	426	467	266	82	42	43
20	118	70	65			90	463	408	253	74	42	41
21	118	73	65			110	540	363	256	66	44	39
22												
23	112	69	60			150	580	366	278	64	46	40
24	108	66	55			180	624	352	278	63	58	44
25	102	61	55			210	501	324	278	64	57	47
26	99	69	55			223	422	308	275	63	46	47
27	93	66	55			238	383	301	260	59	44	66
28	90	63	55									
29	86	61	56			229	380	372	238	60	41	108
30	83	61	60			190	469	501	232	61	41	80
31	90	60	60			167	564	620	223	68	40	60
	93	60	60			158	616	750	218	80	40	52
	99	-	60			180	588	785	212	88	39	48
						198	-	710	-	74	38	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	3,364	190	86	109	6,670
November.....	2,265	106	60	75.5	4,490
December.....	1,922	70	54	62.0	3,810
Calendar year 1938.....	-	-	-	-	-
January.....	1,860	-	-	60	3,690
February.....	1,680	-	-	60	3,330
March.....	3,456	238	60	111	6,850
April.....	13,352	624	232	445	26,430
May.....	16,550	755	301	502	30,940
June.....	10,471	584	212	349	20,770
July.....	3,303	206	59	107	6,550
August.....	1,479	64	38	47.7	2,930
September.....	1,393	108	35	46.4	2,760
Water year 1938-39.....	60,095	785	36	165	119,200

Topaz Reservoir near Topaz, Calif.

Location.- Elevations obtained near outlet works of Topaz Reservoir, lat. 36°41', long. 119°31', in sec. 28, T. 10 N., R. 22 E., 6 miles north of Topaz. Datum of gage is at mean sea level.

Records available.- October 1931 to September 1939.

Extremes.- Maximum contents during year, 57,050 acre-feet Apr. 28, May 1 (elevation, 5,003.95 feet); minimum, 8,750 acre-feet Sept. 29, 30 (elevation, 4,977.9 feet).

1931-39: Maximum contents, 57,950 acre-feet, from revised capacity rating, June 9, 1938 (elevation, 5,004.35 feet); minimum, 505 acre-feet, from revised capacity rating, Oct. 22-25, 1931 (elevation, 4,972.63 feet).

Remarks.- Topaz Reservoir, formerly known as Alkali Lake, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began Jan. 30, 1922. Capacity, 59,440 acre-feet between elevation 4,972.3 feet (lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation 4,970 feet) and 5,005 feet (3 feet below top of levee) above mean sea level. Capacity of reservoir increased from about 45,000 acre-feet to 59,440 acre-feet in October 1937 by construction of an earth-fill, rock-faced levee at south end of reservoir. Water is used for irrigation on lands of the Walker River Irrigation District. Elevations and base data for new capacity table furnished by the Walker River Irrigation District.

Capacity table, water year 1938-39 (elevation, in feet, and contents, in acre-feet) (Computed from data furnished by Walker River Irrigation District)

4,972.3	0	4,977	7,320	4,994	18,720	4,994	36,180	5,004	57,160
4,973	1,080	4,978	8,910	4,986	22,080	4,996	40,080	5,006	61,750
4,974	2,620	4,979	10,520	4,988	25,500	4,998	44,140		
4,975	4,180	4,980	12,130	4,990	28,970	5,000	48,350		
4,976	5,740	4,982	15,400	4,992	32,510	5,002	52,690		

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36,460	-	-	-	-	-	54,350	57,050	53,910	45,590	28,360	14,410
2	36,460	-	42,390	-	-	-	-	-	53,910	45,180	28,010	14,080
3	36,460	-	-	-	50,500	53,800	-	-	55,690	44,660	27,580	13,600
4	36,460	36,940	-	-	-	-	-	56,820	53,460	44,140	27,140	13,110
5	36,460	-	-	-	-	-	-	56,710	53,240	43,620	26,800	12,620
6	36,460	-	-	47,600	-	-	-	-	53,020	43,100	26,540	12,290
7	-	-	-	-	-	-	54,910	-	52,590	42,490	26,190	11,970
8	36,460	-	-	-	-	-	-	56,590	52,470	41,980	25,840	11,640
9	-	-	43,830	-	-	-	-	56,480	52,250	41,470	25,670	11,400
10	36,370	-	-	-	51,150	53,800	-	56,370	52,030	40,970	25,330	11,080
11	-	-	-	-	-	-	55,470	56,260	51,810	40,360	24,980	10,760
12	36,460	38,580	-	-	-	-	-	56,140	51,590	39,770	24,640	-
13	-	-	-	48,450	-	-	-	55,920	51,260	39,170	24,210	10,360
14	36,560	-	-	-	-	-	55,920	-	50,940	38,580	23,700	10,190
15	-	39,770	-	-	-	-	-	55,690	50,720	38,000	23,190	9,870
16	-	-	44,760	-	-	-	-	55,580	50,390	37,410	22,930	9,790
17	-	-	-	-	52,140	53,800	-	55,470	50,070	37,220	22,780	9,630
18	36,560	40,260	-	-	-	-	56,460	55,360	49,850	36,650	21,910	9,580
19	-	-	-	-	-	-	-	55,240	49,530	36,080	21,410	9,550
20	36,560	-	-	49,310	-	-	-	55,240	49,310	36,520	21,070	9,470
21	36,560	-	-	-	-	-	56,930	55,130	48,770	34,870	20,810	9,390
22	-	41,070	-	-	-	-	-	55,130	48,450	34,230	20,140	-
23	-	-	45,590	-	-	-	-	54,910	48,130	33,600	19,800	9,070
24	-	-	-	-	53,580	54,020	-	54,690	47,710	33,050	19,220	9,070
25	36,650	-	-	-	-	-	-	56,930	47,490	32,420	18,720	9,070
26	-	-	-	-	-	-	-	54,240	47,180	31,800	18,300	8,990
27	-	-	-	49,850	-	-	-	54,020	46,860	31,170	17,720	8,910
28	36,650	-	-	-	53,700	-	-	53,910	46,540	30,550	17,220	8,830
29	-	42,080	-	-	-	-	57,050	53,800	46,220	29,940	16,720	8,750
30	-	42,180	46,330	-	-	-	-	53,800	46,910	29,320	16,810	8,750
31	36,750	-	46,510	50,220	-	54,350	-	53,800	-	28,800	15,070	-

Monthly elevation and contents, water year October 1938 to September 1939

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30.....	4,994.15	36,460	-
Oct. 31.....	4,994.30	36,750	+290
Nov. 30.....	-	*42,180	+5,430
Dec. 31.....	-	*46,510	+4,330
Calendar year 1938.....	-	-	+18,050
Jan. 31.....	-	*50,220	+3,710
Feb. 28.....	-	*53,700	+3,480
Mar. 31.....	5,002.75	54,350	+650
Apr. 30.....	-	*57,050	+2,700
May 31.....	5,002.52	53,800	-3,250
June 30.....	4,998.85	45,910	-7,890
July 31.....	4,989.80	28,800	-17,110
Aug. 31.....	4,981.80	15,070	-13,730
Sept. 30.....	4,977.88	8,750	-6,320
Water year 1938-39.....	-	-	-27,710

*Contents interpolated; elevation not determined.

CARSON RIVER BASIN

East Fork of Carson River near Gardnerville, Nev.

Location.- Water-stage recorder, lat. 38°51'30", long. 119°41'50", in NE $\frac{1}{4}$ sec. 2, T. 11 N., R. 20 E., 2 miles east of Mud Lake Reservoir, 3 miles downstream from Leviathan Creek, and 7 miles southeast of Gardnerville. Prior to Dec. 11, 1937, staff gage and Cippolletti weir at site 2 miles downstream.

Drainage area.- 360 square miles.

Records available.- May to September 1939. April 1890 to December 1893, October 1900 to December 1906, June to October 1917, December 1924 to September 1929, and October 1935 to December 1937 at site 2 miles downstream. March 1908 to December 1910, at site 2 miles upstream; records equivalent.

Extremes.- Maximum discharge during period, 738 second-feet May 30 (gage height, 2.73 feet); minimum, 32 second-feet Sept. 8.
1890-93, 1900-1906, 1908-10, 1917, 1924-29, 1935-37, 1939: Maximum discharge, 12,000 second-feet Dec. 11, 1937 (gage destroyed by flood), computed on basis of slope-area determinations of flow of tributaries, 14 miles upstream; minimum discharge observed, 8 second-feet Dec. 4-10, 19-23, 1904.

Remarks.- Records good. Station is above all diversions in Carson Valley. Flow affected by irrigation diversions and several small reservoirs (total capacity, about 5,000 acre-feet) above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-						-	510	138	75	56
2		-						-	468	138	70	55
3		-						-	454	145	58	50
4		-						-	401	148	58	46
5		-						-	355	160	56	44
6												
7		*117						-	327	150	55	39
8		-						-	320	143	52	36
9		-						-	320	110	49	34
10		-						-	320	99	49	36
11		-						-	355	101	50	39
12		-						-	355	103	54	39
13		-						-	316	101	55	46
14		-						-	290	110	54	42
15		-						-	276	106	48	54
16		-						-	294	99	39	58
17		-						-	262	101	41	56
18		-						-	242	108	40	52
19		-						-	229	103	39	50
20		-						422	217	99	41	55
21		-						414	214	101	49	55
22		-						418	206	106	54	55
23		-						414	199	101	55	55
24		-						401	185	101	75	72
25		-						401	171	81	85	72
26		-						401	158	70	75	143
27		-						427	153	70	66	182
28		-						482	143	70	63	112
29		-						555	148	72	60	83
30		-						595	153	83	60	72
31		-						654	146	85	61	65
		-						585	-	93	58	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....												
November.....												
December.....												
Calendar year												
January.....	-	-	-	-	-	-	-					
February.....	-	-	-	-	-	-	-					
March.....	-	-	-	-	-	-	-					
April.....	-	-	-	-	-	-	-					
May 19-31.....	6,149	654	401	473	12,200							
June.....	5,145	510	143	272	16,160							
July.....	3,285	150	70	106	6,520							
August.....	1,744	85	39	56.3	3,450							
September.....	1,853	182	34	61.8	3,680							
The period.....	-	-	-	-	-	42,080						

*Discharge measurement.

Carson River near Carson City, Nev.

Location.- Water-stage recorder, lat. 39°06'30", long. 119°42'30", in NW $\frac{1}{4}$ sec. 2 T. 14 N., R. 20 E., 2 miles downstream from Clear Creek, 2 $\frac{1}{2}$ miles upstream from bridge on road to Mexican Dam, and 5 miles southeast of Carson City.

Records available.- May to September 1939.

Extremes.- Maximum daily discharge during period, 541 second-feet May 12; minimum daily, 4 second-feet (estimated) Aug. 17.

Remarks.- Records good except those for period when water was below intake, June 2 $\frac{1}{2}$ to Sept. 24, which were estimated on basis of four discharge measurements, partial gage-height record on 4 days, and one daily gage reading and are fair. Several diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries above station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						-	-	-	288	17	8	9
2						-	-	-	288	17	8	9
3						-	-	-	234	15	8	9
4						-	-	-	184	10	6	9
5						-	-	-	159	15	6	9
6						-	-	-	129	15	6	9
7						-	-	-	94	10	6	9
8						-	-	-	91	18	6	9
9						-	-	-	75	15	6	9
10						-	-	-	62	10	6	9
11						-	-	-	79	9	6	9
12						-	-	541	85	9	6	9
13						-	*884	471	91	9	6	9
14						†230	-	438	76	9	6	9
15						-	-	456	62	9	6	9
16						-	-	433	57	9	5	9
17						-	-	389	61	9	4	9
18						-	-	359	68	9	5	9
19						-	-	288	58	9	6	9
20						-	-	262	52	9	7	9
21						-	-	202	51	9	7	9
22						-	-	221	46	9	8	9
23						-	-	218	34	9	8	11
24						-	-	196	28	9	8	11
25						-	-	154	31	9	8	17
26						-	-	167	27	9	8	25
27						-	-	159	24	9	8	51
28						-	-	162	21	9	8	46
29						-	-	215	14	9	8	37
30						-	-	266	12	9	8	34
31						-	-	323	-	9	8	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October					
November					
December					
Calendar year					
January	-	-	-	-	-
February	-	-	-	-	-
March	-	-	-	-	-
April	-	-	-	-	-
May 12-31	5,910	541	154	296	11,720
June	2,581	298	12	86.0	5,120
July	331	18	9	10.7	657
August	210	8	4	6.8	417
September	430	51	9	14.3	853
The period	-	-	-	-	18,760

*From highwater mark in gage well.

†Discharge measurement.

CARSON RIVER BASIN

Carson River near Fort Churchill, Nev.

Location.- Water-stage recorder, lat. 39°17', long. 119°18', in SE $\frac{1}{4}$ sec. 32, T. 17 N., R. 24 E., 2 miles west of Fort Churchill and 6 miles east of Clifton.

Drainage area.- 1,450 square miles.

Records available.- January 1934 to September 1939. April 1911 to December 1933, at site 8 miles upstream; records practically equivalent.

Average discharge.- 28 years (1911-39), 357 second-feet.

Extremes.- Maximum daily discharge during year, 790 second-feet Apr. 14; no flow July 7 to Sept. 30.
1911-39: Maximum discharge observed, 6,150 second-feet Jan. 26, 1914 (gage height, 11.5 feet, former site and datum); no flow during some periods in nearly every year since 1923.

Remarks.- Several diversions above station for irrigation, including diversions for irrigation of 720 acres between present site and site used prior to Jan. 1, 1934. Practically entire flow is diverted during late irrigation season. Records of daily discharge furnished by Truckee-Carson Irrigation District.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	76	201	236	201	198	201	385	448	212	18		
2	86	215	244	204	183	207	390	474	218	15		
3	88	230	238	212	204	212	442	458	200	12		
4	93	227	236	209	212	218	573	432	170	10		
5	98	221	233	212	224	215	573	448	139	8		
6	105	218	233	276	215	212	594	422	125	4		
7	122	224	230	370	215	212	594	396	115	0		
8	140	221	230	292	198	218	622	375	104	0		
9	143	207	230	241	169	215	720	375	92	0		
10	164	198	233	233	198	218	755	380	79	0		
11	163	198	236	230	221	230	741	401	72	0		
12	169	198	238	221	221	236	706	458	64	0		
13	172	198	215	221	221	238	755	474	57	0		
14	180	198	260	209	236	241	790	442	51	0		
15	178	212	230	207	244	230	755	416	48	0		
16	183	227	221	204	255	215	636	411	43	0		
17	224	238	227	209	266	215	545	390	40	0		
18	230	238	236	204	241	230	531	354	40	0		
19	227	238	236	201	236	247	531	318	39	0		
20	218	233	236	209	244	271	580	247	39	0		
21	212	233	236	212	250	318	587	221	39	0		
22	207	230	241	233	236	359	608	204	39	0		
23	201	221	238	250	224	432	615	204	36	0		
24	198	209	224	244	221	442	545	198	32	0		
25	199	204	209	233	221	468	484	192	31	0		
26	186	207	212	207	221	474	401	163	26	0		
27	183	209	215	209	215	489	370	151	20	0		
28	180	215	202	215	207	474	328	143	20	0		
29	180	221	218	221	-	432	354	131	19	0		
30	180	224	212	215	-	422	408	120	19	0		
31	183	-	201	215	-	432	-	105	-	0		

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	5,145	230	76	166	10,200
November.....	6,813	238	198	217	12,920
December.....	7,096	260	201	229	14,070
Calendar year 1938.....	284,379	4,370	18	779	564,000
January.....	7,019	370	201	226	13,920
February.....	6,196	266	169	221	12,290
March.....	9,223	489	201	298	18,290
April.....	16,916	790	328	564	35,550
May.....	9,951	474	105	321	19,740
June.....	2,228	218	19	74.3	4,420
July.....	67	18	0	2.2	133
August.....	0	0	0	0	0
September.....	0	0	0	0	0
Water year 1938-39.....	70,354	790	0	193	139,500

Humboldt River at Palisade, Nev.

Location.- Water-stage recorder, lat. 40°37', long. 116°12', in sec. 36, T. 32 N., R. 51 E., a quarter of a mile downstream from Southern Pacific Railroad bridge at Palisade and three-quarters of a mile upstream from Pine Creek. Prior to Apr. 1, 1939, chain gage was used 1,000 feet upstream at different gage datum.

Drainage area.- 5,010 square miles.

Records available.- November 1902 to October 1906, July 1911 to September 1939.

Average discharge.- 31 years (1903-6, 1911-39), 326 second-feet.

Extremes.- Maximum discharge observed during year, 1,900 second-feet Mar. 27 (gage height, 5.88 feet, chain-gage datum); minimum discharge, 15 second-feet Aug. 16-20. 1902-6, 1911-39: Maximum discharge observed, 4,300 second-feet Mar. 5, 1921 (gage height, 8.6 feet); minimum observed, 2 second-feet Aug. 25-28, 1931.

Remarks.- Records good except those for periods of ice effect, Jan. 9-11, Feb. 1-11, which were computed on basis of weather records and are fair. Discharge for periods Oct. 1 to Mar. 31, June 11-27, computed from chain-gage reading made once daily. Water is diverted above station for irrigation of about 150,000 acres of hay and pasture lands.

Discharge, in second-feet, water year October 1938 to September 1937

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	76	102	102	70	76	1,340	688	367	63	32	20
2	30	100	108	108	70	84	1,290	694	379	63	32	20
3	29	91	118	102	85	91	1,260	676	336	63	29	20
4	28	94	124	105	75	89	1,230	670	302	63	27	21
5	25	100	124	108	75	76	1,220	658	292	63	26	22
6	27	94	127	102	80	86	1,160	652	272	53	23	22
7	29	94	121	97	75	81	1,090	634	265	53	22	22
8	28	100	127	94	75	84	1,040	606	240	61	22	23
9	29	105	131	70	75	97	1,000	594	191	63	21	21
10	27	100	124	70	70	97	982	589	172	53	20	21
11	25	97	127	75	75	102	952	572	168	53	20	22
12	29	94	121	86	63	134	934	594	152	53	19	24
13	33	61	108	89	67	221	904	585	156	63	18	26
14	36	69	81	94	71	258	916	562	156	63	17	25
15	42	67	76	86	97	286	880	567	152	43	17	25
16	45	81	91	89	81	298	844	634	149	43	16	24
17	52	91	97	91	69	376	814	640	149	43	15	23
18	59	97	108	100	76	627	784	652	149	47	15	23
19	54	102	102	102	71	680	754	640	145	33	15	22
20	55	111	102	102	69	890	724	617	149	37	16	22
21	57	105	108	106	67	1,270	682	578	145	33	17	22
22	55	100	121	102	69	1,300	640	541	121	32	16	24
23	57	97	114	86	71	1,610	629	572	111	23	17	23
24	55	81	108	81	69	1,700	670	546	105	23	18	27
25	59	71	105	86	89	1,840	688	530	86	23	19	29
26	61	63	108	81	79	1,620	670	490	81	23	20	28
27	57	69	111	84	76	1,900	700	462	79	23	21	31
28	59	76	118	102	71	1,820	623	426	76	23	19	32
29	57	84	97	108	-	1,750	617	398	70	22	20	28
30	61	81	89	105	-	1,680	652	359	66	27	19	29
31	74	-	94	100	-	1,470	-	347	-	23	18	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October	1,363	74	25	44.0	2,700
November	2,661	111	59	88.7	5,280
December	3,592	131	76	109	6,730
Calendar year 1938	119,594	1,660	22	328	237,200
January	2,925	108	70	94.4	5,800
February	2,080	97	63	74.3	4,130
March	22,563	1,900	76	729	44,750
April	26,689	1,340	617	890	52,940
May	17,767	694	347	573	35,240
June	5,270	379	66	176	10,450
July	1,365	66	22	44.0	2,710
August	626	32	15	20.2	1,240
September	721	32	20	24.0	1,430
Water year 1938-39	87,422	1,900	15	240	173,400

HUMBOLDT RIVER BASIN

Humboldt River near Imlay, Nev.

Location.- Water-stage recorder, lat. 40°41'20", long. 118°12'55", in SW¼ sec. 25, T. 33 N., R. 33 E., 600 feet upstream from old Calahan Dam and 4 miles northwest of Imlay.

Drainage area.- 13,500 square miles.

Records available.- June 1935 to September 1939.

Extremes.- Maximum daily discharge during year, 497 second-feet Apr. 21; no flow Sept. 17-30.

1935-39: Maximum daily discharge, 564 second-feet June 4, 1936; no flow during some periods in 1935, 1937-39.

Remarks.- Records good except those estimated Oct. to Dec., which are fair. Station is immediately above flow line of Rye Patch Reservoir and about 9 miles below Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal. Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal releases water into Rye Patch Reservoir. Flow also affected by many diversions above station for irrigation. Daily-discharge record furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				12	13	6	369	448	276	27	24	6
2				12	13	6	354	379	242	19	20	6
3				9	13	31	398	426	225	19	20	6
4				9	13	25	400	406	222	18	20	6
5				10	13	14	392	354	223	17	19	6
6				10	13	10	398	444	215	16	18	6
7				12	13	22	410	432	200	16	14	5
8				12	13	51	422	424	192	15	13	6
9				12	13	69	456	418	184	14	12	6
10				12	13	70	448	388	176	14	12	6
11				12	13	74	460	375	170	14	11	6
12				12	13	75	474	363	153	13	10	6
13				13	13	77	489	350	129	13	9	7
14				13	13	34	497	314	107	13	8	7
15				13	13	18	480	273	97	13	8	7
16				13	13	112	468	242	85	14	8	7
17				14	13	131	488	230	79	14	8	0
18				14	13	135	474	239	72	14	8	0
19				14	13	129	491	260	66	14	7	0
20				14	13	124	495	278	61	16	7	0
21				14	13	125	497	262	55	19	7	0
22				14	13	146	470	237	50	16	7	0
23				14	13	182	470	198	42	16	7	0
24				14	13	208	448	202	38	16	7	0
25				14	13	227	462	202	35	16	7	0
26				14	12	249	476	197	32	16	7	0
27				14	12	274	476	176	27	16	7	0
28				14	12	297	448	150	24	2	6	0
29				14	-	316	448	162	23	32	6	0
30				14	-	339	456	165	21	27	6	0
31				14	-	348	-	208	-	27	6	-
Month	Second-foot-days						Maximum	Minimum	Mean	Run-off in acre-feet		
October.....	156						-	-	5.0	31.0		
November.....	242						-	-	8.1	48.0		
December.....	313						-	-	10.1	62.0		
Calendar year 1938.....	42,434						480	-	116	84,160		
January.....	396						14	9	12.8	785		
February.....	361						13	12	12.9	716		
March.....	3,924						348	6	127	7,780		
April.....	13,484						497	369	449	26,750		
May.....	9,232						448	150	298	18,310		
June.....	3,521						276	21	117	6,980		
July.....	531						32	13	17.1	1,050		
August.....	329						24	6	10.6	553		
September.....	99						7	0	3.3	196		
Water year 1938-39.....	32,588						497	0	89.3	64,630		

Rye Patch Reservoir near Rye Patch, Nev.

Location.- Mercury indicating gage, lat. 40°28'15", long. 118°18'20", in NE¼ sec. 18., T. 30 N., R. 33 E., at control works at left end of Rye Patch Dam, 2 miles northwest of Rye Patch. Datum of gage is at mean sea level (Southern Pacific Ry. datum).

Drainage area.- 13,700 square miles.

Records available.- February 1936 to September 1939.

Extremes.- Maximum contents during year, 30,400 acre-feet May 27, 28 (elevation, 4,112.12 feet); minimum, 7,900 acre-feet Sept. 14-16 (elevation, 4,099.18 feet).
1936-39: Maximum contents, 31,160 acre-feet Apr. 25, 26, 1937 (elevation, 4,112.37 feet).

Remarks.- Reservoir is formed by earth-fill, rock-faced dam; storage began Feb. 20, 1936. Capacity, 178,100 acre-feet between elevations 4,072.5 (sill of trash-rack structure) and 4,135.0 feet (top of spillway gates) above mean sea level. Dead storage negligible. Elevation of spillway (gate sill) is 4,116 feet. Water is used for irrigation on Humboldt project. Records furnished by Bureau of Reclamation.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Furnished by Bureau of Reclamation; computed from project map)

4,072.5	0	4,082	488	4,100	8,590	4,120	64,400
4,076	50	4,085	1,010	4,105	14,380	4,125	101,500
4,077	110	4,090	2,490	4,110	24,520	4,150	147,000
4,080	279	4,095	4,900	4,115	39,770	4,133	178,100

Contents, in acre-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,690	13,380	13,370	13,540	13,920	14,290	20,760	29,630	29,830	25,750	13,160	8,320
2	13,690	13,320	13,370	13,550	13,920	14,290	21,200	29,350	29,660	25,460	12,900	8,320
3	13,540	13,290	13,370	13,570	13,920	14,260	21,540	28,950	29,370	25,060	12,740	8,270
4	13,470	13,450	13,390	13,590	13,940	14,320	21,990	28,890	29,180	24,670	12,620	8,260
5	13,410	13,450	13,470	13,640	13,940	14,480	22,590	28,990	29,230	24,460	12,450	8,230
6	13,470	13,440	13,470	13,690	13,990	14,640	22,950	29,030	29,320	24,100	12,210	8,210
7	13,390	13,410	13,470	13,690	13,990	14,850	22,950	29,030	29,370	23,450	12,050	8,170
8	13,390	13,320	13,470	13,690	14,020	14,850	23,320	29,060	29,600	22,860	11,830	8,140
9	13,390	13,390	13,470	13,690	14,020	14,960	23,800	29,090	29,800	22,350	11,650	8,090
10	13,300	13,380	13,510	13,710	14,040	15,090	24,290	29,320	29,800	21,870	11,480	8,030
11	13,350	13,480	13,540	13,710	14,040	15,140	24,540	29,520	29,800	21,320	11,250	7,980
12	13,320	13,350	13,470	13,710	14,040	15,240	24,830	29,920	29,800	20,820	11,140	7,970
13	13,290	13,340	13,470	13,710	14,060	15,120	25,990	30,090	29,800	20,200	11,080	7,920
14	13,370	13,320	13,470	13,710	14,080	15,580	26,120	30,090	29,800	19,820	10,910	7,900
15	13,420	13,350	13,470	13,710	14,090	15,660	26,320	30,180	29,660	19,960	10,860	7,900
16	13,450	13,350	13,470	13,720	14,150	15,770	26,920	30,210	29,600	18,440	10,660	7,900
17	13,470	13,390	13,470	13,720	14,150	15,870	26,970	30,030	29,460	17,940	10,550	7,920
18	13,490	13,390	13,470	13,720	14,150	16,090	27,180	29,970	29,370	17,250	10,420	7,940
19	13,510	13,390	13,470	13,720	14,160	16,290	27,410	29,980	29,370	16,740	10,220	7,940
20	13,470	13,390	13,470	13,740	14,180	16,690	27,810	29,970	29,030	16,350	9,100	7,940
21	13,470	13,470	13,470	13,820	14,180	16,750	27,890	29,970	29,030	15,900	9,840	7,960
22	13,470	13,400	13,490	13,840	14,180	17,030	28,240	29,890	28,600	15,460	9,620	7,920
23	13,370	13,420	13,490	13,840	14,220	17,250	28,430	30,090	28,600	15,070	9,370	7,920
24	13,280	13,420	13,490	13,840	14,220	17,560	28,630	30,090	28,380	14,820	9,230	7,920
26	13,250	13,390	13,510	13,840	14,250	17,940	28,720	30,300	28,090	14,550	9,040	7,920
26	13,190	13,390	13,510	13,840	14,260	18,140	28,750	30,240	27,610	14,390	8,880	7,940
27	13,190	13,380	13,510	13,840	14,260	18,550	29,230	30,400	27,320	13,950	8,780	7,940
28	13,180	13,370	13,510	13,870	14,290	18,950	29,650	30,400	26,920	13,750	8,570	7,990
29	13,180	13,370	13,510	13,880	-	19,360	29,940	30,330	26,650	13,540	8,560	8,030
30	13,250	13,370	13,520	13,890	-	19,760	29,800	30,180	26,260	13,230	8,450	8,030
31	13,340	-	13,540	13,920	-	20,310	-	29,890	-	13,160	8,360	-

Monthly elevation, and contents, water year October 1938 to September 1939

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Oct. 1.....	4,104.51	13,690	-310
Nov. 1.....	4,104.29	13,390	-30
Dec. 1.....	4,104.28	13,370	+170
Calendar year 1938.....	-	-	+10,900
Jan. 1.....	4,104.40	13,540	+580
Feb. 1.....	4,104.67	13,920	+370
Mar. 1.....	4,104.93	14,290	+6,470
Apr. 1.....	4,108.40	20,760	+8,970
May 1.....	4,111.36	29,630	+200
June 1.....	4,111.93	29,830	-4,100
July 1.....	4,110.45	25,750	-12,570
Aug. 1.....	4,104.15	13,160	-4,840
Sept. 1.....	4,099.65	8,320	-290
Oct. 1.....	4,099.32	8,030	-
Water year 1938-39.....	-	-	-5,660

Humboldt River near Rye Patch, Nev.

Location.- Water-stage recorder, lat. 40°27'25", long. 118°18'20", in NE 1/4 sec. 19, T. 30 N., R. 33 E., 5,000 feet downstream from Rye Patch Dam and 1 mile northwest of Rye Patch.

Drainage area.- 13,700 square miles.

Records available.- October 1935 to September 1939. January 1896 to December 1909, September 1910 to September 1922, and September 1924 to September 1932 (fragmentary) at site near Oreana, 7 miles downstream; records practically equivalent.

Average discharge.- 27 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-39), 204 second-feet.

Extremes.- Maximum daily discharge during year, 491 second-feet Apr. 29-30; no flow Oct. 7-18, Oct. 30 to Nov. 4, Nov. 18 to Mar. 24.

1896-1922 1924-32, 1935-39: Maximum discharge, 3,050 second-feet May 12, 1897 (gage height, 12.0 feet, former site); no flow during some periods in 1905, 1915, 1918-20, 1931-32, 1935-39.

Remarks.- Records good. Because of unstable conditions caused by backwater from aquatic growth at gaging station, flow was computed from gate openings at dam, 5,000 feet upstream, by applying a coefficient determined from current-meter measurements to the theoretical discharge. Flow completely regulated by Rye Patch Reservoir (capacity, 179,000 acre-feet), 5,000 feet upstream, and affected also by many diversions above station for irrigation and by storage in Taylor-Pitt Reservoirs. Records of daily discharge furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	0				0	130	489	223	220	153	28
2	14	0				0	121	459	236	220	152	28
3	14	0				0	154	477	268	220	138	21
4	14	0				0	163	435	243	219	126	15
5	14	6				0	217	435	216	246	126	15
6		3	12			0	232	436	203	291	125	15
7	0	0	14			0	238	436	203	326	125	32
8	0	0	14			0	238	422	203	347	117	40
9	0	0	14			0	250	406	203	346	108	40
10	0	0	14			0	256	404	203	345	108	40
11	0	0	14			0	256	325	203	344	94	40
12	0	0	14			0	257	304	203	347	82	29
13	0	0	14			0	258	304	203	365	82	20
14	0	0	13			0	258	304	203	364	82	10
15	0	0	12			0	259	304	182	362	81	10
16	0	0	12			0	258	304	173	361	81	10
17	0	0	5			0	313	304	160	360	81	10
18	0	0	0			0	330	304	151	359	98	10
19	13	0	0			0	330	269	151	334	106	10
20	24	0	0			0	331	219	151	307	106	10
21	35	0	0			0	349	202	151	263	105	21
22	46	0	0			0	372	168	151	274	105	19
23	46	0	0			0	399	166	173	273	104	10
24	41	0	0			0	400	172	170	256	104	10
25	28	0	0			58	400	159	162	201	104	10
26	16	0	0			50	417	147	162	201	84	10
27	7	0	0			50	456	150	164	200	73	10
28	7	0	0			50	490	192	206	200	73	10
29	4	0	0			69	491	193	221	166	61	10
30	0	0	0			123	491	224	221	153	62	10
31	0	0	0			111	-	223	-	153	47	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	342	46	0	11.0	678							
November.....	158	14	0	5.3	313							
December.....	0	0	0	0	0							
Calendar year 1938.....	32,828	451	0	89.9	65,120							
January.....	0	0	0	0	0							
February.....	0	0	0	0	0							
March.....	511	123	0	165	1,010							
April.....	9,145	491	120	305	18,140							
May.....	9,366	489	147	302	18,580							
June.....	5,784	268	151	193	11,470							
July.....	8,652	365	153	279	17,160							
August.....	3,082	153	47	99.4	6,110							
September.....	553	40	10	18.4	1,100							
Water year 1938-39.....	37,593	491	0	103	74,560							

South Fork of Humboldt River near Elko, Nev.

Location.- Water-stage recorder, lat. 40°43'15", long. 115°49'50", in NW¼ sec. 30, T. 33 N., R. 55 E., a quarter of a mile upstream from head of canyon, 1.5 miles (revised) downstream from highway bridge, 9 miles (revised) upstream from mouth, and 10 miles southwest of Elko.

Drainage area.- 1,150 square miles.

Records available.- August 1896 to September 1922, October 1923 to September 1932, October 1936 to September 1939.

Extremes.- Maximum discharge during year, 476 second-feet Mar. 28 (gage height, 3.19 feet); minimum daily discharge, 2 second-feet July 23, Sept. 8-23.
1896-1922; 1923-32, 1936-39: Maximum discharge, 2,400 second-feet Jan. 26, 1914, from rating curve extended above 1,200 second-feet; no flow during some periods in nearly every year since 1915.

Remarks.- Records good except those for period of ice effect, Nov. 13 to Mar. 19 (computed on basis of records for Humboldt River at Palisade and weather records), those for period of missing gage heights, Apr. 3-4 (interpolated), and those when water was below intake pipe, Aug. 3 to Sept. 23 (estimated), all of which are fair.

Rating table, water year 1938-39 except period of ice effect (gage height, in feet, and discharge, in second-feet)

0.9	1	1.4	22	2.0	106	3.0	401
1.0	3	1.5	31	2.2	150	3.3	520
1.1	4	1.6	42	2.4	202	3.6	655
1.2	10	1.7	55	2.6	261	4.0	850
1.3	15	1.8	70	2.8	327		

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5	54				40	303	313	352	23	12	2
2	5	56				45	296	317	287	22	9	2
3	5	50				45	320	307	261	21	6	2
4	5	46				45	345	317	249	21	4	2
5	5	54				40	371	341	249	21	3	2
6	5	43				45	352	320	222	35	3	2
7	4	43				40	338	283	183	32	2	2
8	9	43				45	324	277	150	26	2	2
9	12	43				60	317	274	129	24	2	2
10	10	45				50	313	274	132	21	2	2
11	8	46				55	307	303	129	22	2	2
12	8	42				70	303	303	132	21	2	2
13	8	32				100	300	267	136	20	2	2
14	5	35				150	303	249	132	16	2	2
15	31	36				200	293	251	114	15	2	2
16	35	42				250	261	267	129	12	2	2
17	29	45				275	246	327	119	10	2	2
18	26	52				300	237	341	104	9	2	2
19	24	52				325	231	334	98	7	2	2
20	25	50				334	222	290	89	6	2	2
21	25	47				352	225	271	72	5	2	2
22	24	42				327	237	303	54	5	2	2
23	23	37				320	271	334	36	3	2	2
24	24	35				334	300	300	32	2	2	9
25	24	37				341	290	246	30	3	2	9
26	23	38				367	249	211	32	3	2	6
27	23	40				448	219	202	36	3	2	7
28	23	45				444	205	208	39	8	2	10
29	23	47				409	214	240	28	10	2	9
30	24	50				356	300	287	26	28	2	8
31	42	-				320	-	356	-	16	2	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	545	42	5	17.6	1,080
November.....	1,330	56	32	44.3	2,640
December.....	1,705	-	-	55	3,380
Calendar year 1938.....	38,655	745	1	106	76,670
January.....	1,550	-	-	50	3,070
February.....	1,120	-	-	40	2,220
March.....	6,522	448	40	210	12,940
April.....	8,492	371	205	283	16,840
May.....	8,923	356	202	288	17,700
June.....	3,761	352	26	123	7,500
July.....	470	35	2	15.2	932
August.....	87	12	2	2.8	173
September.....	106	10	2	3.5	210
Water year 1938-39.....	34,631	446	2	94.9	68,680

Peak discharge.- Mar. 28 (1 a.m.) 476 sec.-ft.; June 28 (7 p.m.) 85 sec.-ft.; June 30 (1 a.m.) 199 sec.-ft.; Sept. 24 (1 p.m.) 168 sec.-ft.

Martin Creek near Paradise Valley, Nev.

Location.- Water-stage recorder, lat. 41°32'00", long. 117°25'40", in NW¼ sec. 12, T. 42 N., R. 40 E., 0.6 mile upstream from Humboldt County Fish Hatchery and 7 miles (revised) northeast of Paradise Valley. Prior to Oct. 28, 1938, water-stage recorder at site 200 feet upstream at different gage datum.

Records available.- October 1921 to September 1939.

Average discharge.- 17 years (1921-26, 1927-39), 24.4 second-feet.

Extremes.- Maximum discharge during year, 330 second-feet Mar. 20 (gage height, 3.90 feet), from rating curve extended above 100 second-feet; minimum daily discharge, 3 second-feet several days in August.

1921-39: Maximum discharge, about 1,000 second-feet Feb. 21 to 22, 1927, from rating curve extended above 200 second-feet; minimum, 2 second-feet Sept. 1-9, 1928.

Remarks.- Records fair. Discharge for periods of ice effect or missing gage heights, Nov. 12-15, 19, Dec. 12-16, Jan. 1-25, Feb. 23 to Mar. 2, computed on basis of temperature records, and those Mar. 28-31, Apr. 9-11, interpolated. No diversion above gage.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6	9	11	8	9	11	98	56	18	6	4	4
2	7	9	11	9	10	11	102	57	18	6	4	5
3	6	9	12	10	9	11	97	56	16	6	3	5
4	6	13	11	10	10	11	102	57	16	6	3	5
5	6	20	12	10	10	10	91	57	16	7	3	5
6	7	12	12	9	10	10	80	54	14	7	3	5
7	7	11	11	7	10	11	75	50	14	6	3	5
8	7	11	11	7	10	10	80	49	12	6	3	5
9	7	11	11	8	9	11	77	49	12	5	3	5
10	7	12	11	9	10	12	74	53	12	5	3	5
11	7	10	11	10	10	12	71	51	11	5	4	5
12	7	9	10	10	10	32	68	47	10	5	4	5
13	7	8	8	10	10	24	64	46	10	4	4	6
14	7	9	9	10	10	18	56	43	9	4	4	6
15	10	10	10	10	10	25	51	41	9	4	4	6
16	11	12	10	10	11	64	50	41	10	4	4	6
17	9	11	10	10	10	100	49	39	11	4	3	5
18	8	10	11	10	9	119	61	36	12	4	4	5
19	8	10	10	10	10	167	57	34	11	4	4	5
20	8	11	10	10	10	208	61	33	11	4	4	5
21	8	10	10	9	10	201	63	31	9	4	4	5
22	8	11	8	8	11	180	63	29	9	4	4	5
23	8	7	9	7	11	180	59	28	8	4	4	5
24	8	9	10	7	11	174	58	27	8	4	4	5
25	8	9	8	8	10	166	54	26	8	4	4	6
26	8	8	10	9	10	160	49	24	8	4	4	6
27	8	10	10	10	10	133	49	23	7	4	4	5
28	8	10	11	10	11	126	52	22	7	4	4	5
29	8	11	11	11	-	119	58	21	7	4	4	5
30	8	11	10	10	-	112	58	20	6	4	4	5
31	8	-	9	10	-	105	-	20	-	4	4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	236	11	6	7.6	468
November.....	313	20	7	10.4	621
December.....	318	12	8	10.3	631
Calendar year 1938.....	17,484	387	4	47.9	34,680
January.....	286	11	7	9.2	567
February.....	281	11	9	10.0	557
March.....	2,533	208	10	81.7	5,020
April.....	2,017	102	49	67.2	4,000
May.....	1,221	58	20	39.4	2,420
June.....	329	18	6	11.0	653
July.....	146	7	4	4.7	290
August.....	115	4	3	3.7	228
September.....	165	6	4	5.2	307
Water year 1938-39.....	7,950	208	3	21.8	15,760

Peak discharge.- Mar. 12 (6 p.m.) 93 sec.-ft.; Mar. 16 (8 p.m.) 165 sec.-ft.; Mar. 17 (7 p.m.) 244 sec.-ft.; Mar. 18 (8 p.m.) 262 sec.-ft.; Mar. 19 (9 p.m.) 301 sec.-ft.; Mar. 20 (8:30 p.m.) 330 sec.-ft.

Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal near Humboldt, Nev.

Location.— Water-stage recorder and Cippoletti weir, lat. 40°36'25", long. 118°18'20", in SE¼ sec. 30, T. 32 N., R. 33 E., at outlet of lower Taylor-Pitt Reservoir, 2½ miles west of Humboldt.

Records available.— February 1914 to September 1920, October 1921 to September 1939.

Average discharge.— 24 years, 13.8 second-feet.

Extremes.— Maximum daily discharge during year, 295 second-feet Apr. 27; no flow during several periods.

1914-20, 1921-39: Maximum daily discharge, 477 second-feet July 17, 1917; practically no flow at times during each year.

Remarks.— Records good. Flow regulated by reservoir outlet gates a few hundred feet upstream. Canal conducts stored water released from Taylor-Pitt Reservoirs to Rye Patch Reservoir, from which it is later released and carried in natural river channel to Lovelock district for use in irrigation. Records of daily discharge furnished by Bureau of Reclamation.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7	0				0	15	7	0	59	56	15
2	0	0				0	15	6	0	59	46	15
3	0	0				31	26	26	15	59	42	7
4	0	0				62	30	55	76	59	31	0
5	0	2				67	44	86	85	7½	31	0
6	0	17				64	50	86	95	9½	31	0
7	0	17				14	50	96	99	9½	29	18
8	0	17				0	50	86	95	9½	15	25
9	0	17				0	60	86	81	9½	15	25
10	0	17				0	63	86	77	9½	15	25
11	0	17				0	63	86	76	9½	21	25
12	0	17				0	63	86	76	9½	30	14
13	0	17				0	63	86	76	9½	30	10
14	0	17				0	63	86	76	9½	24	10
15	0	17				0	48	66	64	9½	16	10
16	0	7				0	27	45	60	9½	8	10
17	0	0				0	27	44	60	9½	10	10
18	0	0				0	27	45	60	9½	17	10
19	7	0				0	27	45	60	9½	16	10
20	26	0				0	27	44	60	9½	16	10
21	25	0				0	35	44	60	9½	16	10
22	25	0				0	39	41	60	9½	8	10
23	25	0				0	39	22	56	97	6	10
24	19	0				0	44	12	36	9½	15	10
25	9	0				0	40	0	31	9½	15	10
26	9	0				0	163	0	30	9½	23	10
27	9	0				0	295	0	30	6½	26	10
28	9	0				0	237	0	42	54	14	10
29	0	0				0	50	0	59	54	0	10
30	0	0				42	8	0	59	57	10	10
31	0	-				22	-	0	59	56	15	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	170		25	0	5.5	337						
November.....	179		17	0	6.0	355						
December.....	0		0	0	0	0						
Calendar year 1938.....	2,265		85	0	6.2	4,500						
January.....	0		0	0	0	0						
February.....	0		0	0	0	0						
March.....	302		67	0	9.7	599						
April.....	1,788		295	8	59.6	3,550						
May.....	1,392		86	0	44.9	2,760						
June.....	1,763		99	0	58.8	3,500						
July.....	2,614		98	54	84.3	5,180						
August.....	647		56	0	20.9	1,280						
September.....	349		25	0	11.6	692						
Water year 1938-39.....	9,204		295	0	25.2	18,250						

PYRAMID AND WINNEMUCCA LAKES BASIN

Pyramid Lake near Nixon, Nev.

Location.- Bench mark N 21 of U. S. Coast and Geodetic Survey, lat. $39^{\circ}50'30''$, long. $119^{\circ}28'$, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 24, T. 23 N., R. 22 E., at southwest corner of concrete bridge No. 296 B, 150 feet southwest of milepost 297, 11.5 miles south along Southern Pacific Railroad from station at Sutcliffe, and 6 miles west of Nixon. Elevation of bench mark is 3,940.038 feet above mean sea level (general adjustment of 1929). This bench mark has been used since January 1934 and not bench mark No. 1 of General Land Office as previously published in error.

Records available.- 1867 to 1925 (occasional elevations in some years), June 1926 to September 1939. Elevations prior to January 1934 referred to general adjustment of 1912, datum of which is 0.57 foot above that of general adjustment of 1929.

Extremes.- 1926-39: Maximum elevation observed, 3,847.35 feet June 1926; minimum, 3,816.4 feet Jan. 29, 1937; elevations referred to general adjustment of 1929.

Remarks.- Elevations determined by spirit leveling. Records furnished by Indian Service.

Elevation, in feet, above mean sea level, water year 1938-39

Oct. 19	3,819.95	Feb. 17	3,819.8	June 28	3,819.35
Nov. 18	3,819.7	Mar. 20	3,819.85	July 18	3,819.06
Dec. 17	3,819.65	Apr. 18	3,819.9	Aug. 18	3,818.6
Jan. 18	3,819.95	May 27	3,819.8	Sept. 19	3,817.9

Lake Tahoe at Tahoe, Calif.

Location.- Staff gage, lat. $39^{\circ}09'55''$, long. $120^{\circ}08'25''$, in NW $\frac{1}{4}$ sec. 7, T. 15 N., R. 17 E., near outlet of lake at Tahoe. Zero of gage is 6,219.01 feet above mean sea level (general adjustment of 1929), or 6,220.0 feet above mean sea level (datum of Bureau of Reclamation).

Drainage area.- 519 square miles (including water surface of lake, which is 193 square miles).

Records available.- 1900 to September 1939.

Extremes.- 1937-38: Maximum stage during year, 8.92 feet July 27-29; minimum, 3.95 feet Dec. 8, 9.
1938-39: Maximum stage during year, 7.85 feet Oct. 1, 2; minimum, 5.35 feet Sept. 24.
1900-1939: Maximum stage, 11.26 feet July 14, 15, 17, 18, 1907; minimum, 1.74 feet Dec. 26, 1934.

Remarks.- Lake levels maintained by concrete regulator dam with 17 gates; storage began about 1874. Capacity, 1,028,000 acre-feet between elevations 6,222.01 feet (natural rim of lake at outlet) and 6,230.27 feet (highest stage recorded, July 14, 15, 17, 18, 1907) above mean sea level. Sill of outlet gates is 6,218.01 feet above mean sea level. Elevations given herein referred to general adjustment of 1929. Water is used for irrigation in State of Nevada and for power development. Gage read once daily. Records furnished by H. C. Dukes, Federal Court Watermaster, in cooperation with Truckee-Carson Irrigation District. Increase in capacity in the range indicated, about 125,000 acre-feet per foot of rise.

PYRAMID AND WINNEMUCCA LAKES BASIN

Gage height, in feet, of Lake Tahoe at Tahoe, Calif., 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.42	4.19	4.01	4.72	4.85	5.47	6.06	6.51	7.69	8.71	8.90	8.39
2	4.39	4.11	4.01	4.72	4.85	5.59	6.06	6.53	7.74	8.72	8.89	8.37
3	4.38	4.10	4.00	4.71	4.95	5.61	6.06	6.55	7.79	8.73	8.88	8.35
4	4.35	4.10	3.99	4.70	5.06	5.62	6.06	6.56	7.84	8.73	8.86	8.33
5	4.34	4.09	3.97	4.70	5.12	5.61	6.15	6.58	7.88	8.72	8.85	8.30
6	4.32	4.08	3.97	4.70	5.12	5.61	6.15	6.59	7.93	8.73	8.84	8.27
7	4.30	4.06	3.96	4.70	5.11	5.61	6.15	6.60	7.97	8.73	8.82	8.25
8	4.27	4.04	3.95	4.68	5.10	5.60	6.14	6.62	8.01	8.71	8.81	8.22
9	4.26	4.02	3.95	4.66	5.10	5.60	6.15	6.64	8.06	8.75	8.79	8.20
10	4.25	3.99	4.13	4.66	5.17	5.59	6.16	6.67	8.10	8.71	8.77	8.19
11	4.23	4.01	4.46	4.65	5.31	5.59	6.16	6.67	8.13	8.77	8.75	8.18
12	4.23	4.02	4.72	4.65	5.37	5.59	6.16	6.75	8.16	8.77	8.73	8.17
13	4.22	4.01	4.75	4.64	5.38	5.80	6.16	6.79	8.19	8.78	8.70	8.15
14	4.23	4.00	4.77	4.63	5.43	5.83	6.16	6.84	8.22	8.79	8.67	8.14
15	4.24	3.99	4.78	4.67	5.46	5.83	6.17	6.90	8.25	8.80	8.65	8.13
16	4.23	3.97	4.80	4.68	5.45	5.82	6.17	6.96	8.28	8.81	8.63	8.12
17	4.23	4.03	4.80	4.70	5.45	5.88	6.19	7.02	8.30	8.81	8.62	8.11
18	4.22	4.04	4.80	4.71	5.45	5.88	6.20	7.03	8.33	8.83	8.60	8.09
19	4.22	4.04	4.81	4.71	5.45	5.89	6.22	7.13	8.37	8.83	8.53	8.07
20	4.21	4.05	4.79	4.72	5.48	5.96	6.24	7.16	8.39	8.84	8.57	8.06
21	4.20	4.03	4.77	4.71	5.47	6.00	6.26	7.19	8.43	8.84	8.55	8.05
22	4.20	4.07	4.77	4.71	5.47	5.99	6.29	7.23	8.46	8.85	8.54	8.04
23	4.19	4.04	4.79	4.70	5.47	6.02	6.32	7.26	8.49	8.85	8.52	8.02
24	4.18	4.07	4.78	4.70	5.47	6.10	6.35	7.30	8.52	8.85	8.50	7.99
25	4.18	4.06	4.77	4.69	5.46	6.11	6.37	7.34	8.55	8.85	8.48	7.97
26	4.18	4.05	4.76	4.69	5.45	6.11	6.39	7.39	8.56	8.85	8.47	7.95
27	4.17	4.04	4.74	4.69	5.45	6.09	6.42	7.43	8.60	8.92	8.46	7.93
28	4.17	4.03	4.73	4.70	5.44	6.08	6.44	7.48	8.62	8.92	8.44	7.94
29	4.16	4.02	4.72	4.70	-	6.07	6.46	7.54	8.65	8.92	8.42	7.91
30	4.15	4.02	4.72	4.69	-	6.07	6.48	7.59	8.69	8.91	8.41	7.88
31	4.15	-	4.72	4.74	-	6.06	-	7.64	-	8.91	8.39	-

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.85	7.48	7.17	6.85	6.82	6.71	6.75	7.00	7.21	6.92	6.49	5.81
2	7.85	7.46	7.16	6.82	6.80	6.69	6.77	7.01	7.21	6.90	6.47	5.77
3	7.84	7.44	7.15	6.81	6.83	6.69	6.79	7.02	7.20	6.89	6.46	5.74
4	7.81	7.43	7.14	6.80	6.82	6.68	6.80	7.03	7.20	6.88	6.44	5.71
5	7.79	7.44	7.13	6.94	6.80	6.67	6.81	7.04	7.18	6.85	6.42	5.69
6	7.77	7.40	7.12	6.93	6.81	6.66	6.81	7.04	7.16	6.84	6.40	5.67
7	7.75	7.37	7.12	6.91	6.84	6.66	6.81	7.05	7.14	6.82	6.39	5.65
8	7.74	7.35	7.11	6.90	6.91	6.68	6.83	7.06	7.13	6.81	6.37	5.63
9	7.73	7.33	7.10	6.88	6.91	6.71	6.84	7.06	7.12	6.80	6.35	5.60
10	7.72	7.33	7.09	6.86	6.90	6.72	6.86	7.12	7.12	6.79	6.33	5.58
11	7.70	7.36	7.08	6.85	6.89	6.70	6.87	7.15	7.12	6.78	6.31	5.57
12	7.69	7.34	7.06	6.84	6.88	6.69	6.87	7.16	7.11	6.77	6.29	5.57
13	7.67	7.32	7.04	6.83	6.88	6.68	6.88	7.16	7.11	6.75	6.27	5.54
14	7.66	7.30	7.03	6.82	6.88	6.66	6.88	7.17	7.11	6.74	6.25	5.50
15	7.69	7.29	7.03	6.81	6.87	6.65	6.88	7.17	7.10	6.72	6.23	5.48
16	7.66	7.28	7.01	6.80	6.85	6.64	6.89	7.18	7.09	6.71	6.20	5.45
17	7.62	7.27	7.00	6.79	6.83	6.63	6.90	7.19	7.08	6.69	6.18	5.42
18	7.60	7.25	6.99	6.78	6.81	6.63	6.91	7.19	7.06	6.68	6.16	5.40
19	7.58	7.25	6.98	6.77	6.80	6.63	6.91	7.16	7.04	6.67	6.14	5.41
20	7.56	7.24	6.99	6.81	6.79	6.63	6.92	7.16	7.03	6.65	6.12	5.40
21	7.55	7.23	6.99	6.83	6.78	6.64	6.93	7.17	7.02	6.63	6.11	5.39
22	7.54	7.22	6.96	6.81	6.77	6.65	6.94	7.19	7.01	6.61	6.09	5.38
23	7.53	7.21	6.93	6.79	6.76	6.66	6.95	7.20	7.01	6.60	6.08	5.37
24	7.53	7.20	6.92	6.79	6.76	6.67	6.96	7.19	7.00	6.59	6.06	5.35
25	7.52	7.19	6.92	6.78	6.75	6.68	6.96	7.19	6.98	6.59	6.04	5.40
26	7.51	7.18	6.91	6.77	6.74	6.70	6.97	7.19	6.97	6.57	6.01	5.47
27	7.50	7.17	6.89	6.78	6.72	6.71	6.97	7.20	6.96	6.55	5.98	5.47
28	7.49	7.15	6.88	6.80	6.73	6.72	6.98	7.21	6.95	6.55	5.95	5.45
29	7.47	7.15	6.87	6.79	-	6.73	6.99	7.22	6.95	6.54	5.92	5.43
30	7.48	7.14	6.86	6.82	-	6.73	6.99	7.22	6.94	6.52	5.89	5.42
31	7.48	-	6.85	6.83	-	6.74	-	7.22	-	6.50	5.85	-

PYRAMID AND WINNEMUCCA LAKES BASIN

Truckee River at Tahoe, Calif.

Location.- Water-stage recorder, lat. 39°09'55", long. 120°08'45", in NW¼ sec. 7, T. 15 N., R. 17 E., at Tahoe, just below dam at outlet of Lake Tahoe. Altitude, about 6,200 feet.

Drainage area.- 519 square miles.

Records available.- July 1895 to February 1896, June 1900 to September 1939.

Average discharge.- 39 years (1900-1939), 243 second-feet.

Extremes.- Maximum discharge during water year 1938, 505 second-feet (regulated), July 28, 29; no flow for several months.

Maximum daily discharge during water year 1939, 490 second-feet (regulated), July 23 to Sept. 15; no flow Mar. 21 to May 15.

1895-96, 1900-1939: Maximum daily discharge, 1,340 second-feet July 13-20, 1907; no flow during parts of 1900, 1901, 1914, 1918-39.

Remarks.- Flow regulated by operation of gates in dam at Lake Tahoe and occasionally by pumping from lake. Record of daily discharge furnished by H. C. Dukes, Federal Court Watermaster, in cooperation with Truckee-Carson Irrigation District.

Discharge, in second-feet, 1937-39

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	176	115	96	159	128	326	110			0	215	402
2	169	113	96	159	128	263	110			0	247	402
3	167	111	94	176	183	226	110			0	276	402
4	160	111	93	186	230	226	46			0	287	402
5	158	109	90	186	230	226	0			0	302	402
6	153	108	90	186	230	226	0			0		
7	149	104	88	186	230	264	0			0	320	402
8	143	101	87	186	230	287	0			0	353	402
9	141	97	87	212	202	287	0			0	336	402
10	139	93	42	234	182	287	0			0	342	402
										0	346	402
11	135	96	0	206	182	287	0			0		
12	135	97	0	186	182	198	0			0	352	402
13	133	96	0	186	182	56	0			0	362	402
14	135	94	0	170	128	30	0			0	370	402
15	137	93	0	161	82	60	0			0	375	402
										12	382	402
16	135	90	0	161	82	60	0			22	386	402
17	135	99	0	150	48	60	0			22	386	402
18	133	101	0	128	0	60	0			22	386	402
19	133	101	0	128	0	60	0			22	386	402
20	131	103	0	128	0	60	0			22	386	402
21	129	108	0	128	0	60	0					
22	129	106	0	128	0	60	0			27	386	402
23	127	101	93	128	42	60	0			74	386	402
24	125	106	159	128	101	28	0			95	386	402
25	125	104	159	128	143	0	0			102	386	402
										132	386	402
26	125	103	169	128	226	30	0					
27	124	101	159	128	226	60	0			164	394	402
28	124	99	159	128	255	60	0			337	402	402
29	122	97	169	128	-	60	0			503	402	402
30	120	97	169	128	-	91	0			503	402	402
31	120	-	169	128	-	110	-			387	402	360
										207	402	-

Discharge, in second-feet, of Truckee River at Tahoe, Calif. 1937-39--Continued

1938-39												
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	329	212	311	367	343	343		0	181	441	490	490
2	358	197	311	367	343	343		0	215	441	490	490
3	303	197	311	367	343	343		0	275	443	490	490
4	303	197	311	367	343	343		0	303	449	490	490
5	303	197	311	367	343	343		0	303	449	490	490
6	303	197	311	367	343	343		0	318	447	490	490
7	303	197	311	367	343	343		0	343	454	490	490
8	303	197	311	367	343	343		0	353	467	490	490
9	303	212	320	367	343	343		0	353	467	490	490
10	303	222	328	367	343	343		0	353	467	490	490
11	303	240	338	367	343	343		0	353	467	490	490
12	303	269	358	367	343	343		0	353	467	490	490
13	303	282	367	359	343	343		0	360	463	490	490
14	303	315	367	353	343	343		0	373	467	490	490
15	362	362	367	353	343	343		0	379	467	490	490
16	330	362	367	353	343	343		27	386	467	490	484
17	303	344	357	353	343	343		85	390	467	490	479
18	303	319	348	353	343	343		132	390	467	490	473
19	303	299	348	353	343	280		176	396	467	490	471
20	303	291	348	353	343	102		203	400	473	490	468
21	303	291	348	353	343	0		218	400	471	490	463
22	303	291	356	353	343	0		196	411	485	490	457
23	303	291	367	353	343	0		183	417	490	490	454
24	303	300	367	353	343	0		199	417	490	490	449
25	303	311	367	349	343	0		114	417	490	490	463
26	252	311	367	343	343	0		208	417	490	490	497
27	226	311	367	343	343	0		208	425	490	490	487
28	226	311	367	343	343	0		208	430	497	490	484
29	226	311	367	343	-	0		177	435	490	490	476
30	226	311	367	343	-	0		143	441	490	490	440
31	226	-	367	343	-	0		150	-	490	490	-
Month						Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet		
October 1937						4,267	176	120	138	8,460		
November						3,054	115	90	102	6,060		
December						2,228	159	0	71.9	4,420		
Calendar year 1937						52,596	466	0	144	104,300		
January 1938						4,882	234	128	157	9,680		
February						3,852	255	0	138	7,540		
March						4,168	326	0	134	8,270		
April						376	110	0	12.5	746		
May						0	0	0	0	0		
June						0	0	0	0	0		
July						2,656	505	0	85.7	5,270		
August						11,109	402	215	368	22,030		
September						12,018	402	360	401	23,840		
Water year 1937-38						48,610	505	0	133	96,420		
October 1938						9,094	362	226	293	18,040		
November						8,147	362	197	272	16,160		
December						10,708	367	311	345	21,240		
Calendar year 1938						67,010	505	0	184	132,900		
January 1939						11,053	367	343	357	21,920		
February						9,604	343	343	343	19,050		
March						6,525	343	0	210	12,940		
April						0	0	0	0	0		
May						2,627	218	0	84.7	5,210		
June						10,987	441	181	366	21,790		
July						14,543	490	441	469	28,850		
August						15,190	490	490	490	30,130		
September						14,385	490	440	480	28,530		
Water year 1938-39						112,863	490	0	309	223,900		

Truckee River at Iceland, Calif.

Location.- Water-stage recorder, lat. 39°22'35", long. 120°01'35", in S½ sec. 31, T. 18 N., R. 18 E., upstream from dam of National Ice Co. at Iceland. Altitude, about 5,420 feet.

Drainage area.- 937 square miles.

Records available.- August 1912 to December 1937, when station was destroyed by flood. September 1899 to August 1912 at Nevada-California State line, 8 miles (revised) downstream.

Average discharge.- 25 years (1912-37), 628 second-feet.

Extremes.- Maximum discharge during period October to December 1937, 15,500 second-feet Dec. 11 (gauge height, 11.59 feet); minimum daily, 157 second-feet Nov. 10. 1899-1937: Maximum discharge, that of Dec. 11, 1937; minimum, 28 second-feet Dec. 18, 1930.

Remarks.- Storage upstream from station in Lakes Tahoe, Donner, Independence, and Weber. Record of daily discharge furnished by H. C. Dukes, Federal Court Watermaster, in cooperation with Truckee-Carson Irrigation District.

Discharge, in second-feet, water year October 1937 to September 1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	226	176	176									
2	226	172	187									
3	239	168	179									
4	226	168	176									
5	230	168	172									
6	226	164	172									
7	221	157	168									
8	204	160	172									
9	200	160	176									
10	196	157	4,000									
11	196	183	12,300									
12	191	179	7,200									
13	196	172	4,000									
14	239	191	2,400									
15	257	183	1,500									
16	217	183	1,100									
17	209	352	950									
18	204	275	800									
19	200	263	750									
20	196	424	700									
21	196	483	650									
22	191	320	550									
23	191	286	500									
24	191	290	430									
25	187	253	430									
26	187	226	430									
27	187	217	430									
28	183	204	430									
29	183	196	430									
30	179	179	430									
31	179	-	430									
Month				Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet				
October.....				6,353	257	179	205	12,600				
November.....				6,998	483	157	223	13,290				
December.....				42,416	12,300	168	1,368	84,130				
Calendar year 1937.....				246,623	12,300	157	676	489,100				
January.....				-	-	-	-	-				
February.....				-	-	-	-	-				
March.....				-	-	-	-	-				
April.....				-	-	-	-	-				
May.....				-	-	-	-	-				
June.....				-	-	-	-	-				
July.....				-	-	-	-	-				
August.....				-	-	-	-	-				
September.....				-	-	-	-	-				
The period.....				-	-	-	-	110,000				

Truckee River at Farad, Calif.

Location.- Water-stage recorder, lat. 39°26', long. 120°02', in SW¼ sec. 18, T. 18 N., R. 18 E., 0.5 mile downstream from Farad power plant, 2 miles downstream from Bronco Creek, and 3 miles north of Iceland. Altitude, about 5,200 feet.

Records available.- January 1938 to September 1939. (See records for Truckee River at Iceland, Calif.).

Average discharge.- 27 years (1912-39), 642 second-feet.

Extremes.- Maximum daily discharge during water year 1938-39, 857 second-feet Apr. 8; minimum daily, 348 second-feet Mar. 29.

1938-39: Maximum daily discharge, 6,770 second-feet May 15, 1938; minimum daily, 310 second-feet Feb. 25, 1938.

Remarks.- Storage upstream from station in Lakes Tahoe, Donner, Independence, and Weber. Record of daily discharge furnished by H. C. Dukes, Federal Court Watermaster, in cooperation with Truckee-Carson Irrigation District.

Discharge, in second-feet, 1938-39

1938

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				450	331	537	554	2,930	3,960	1,210	505	510
2				430	334	582	577	2,730	3,890	1,170	501	512
3				450	350	476	635	2,370	3,740	1,120	505	514
4				400	400	464	703	2,590	4,280	1,070	516	517
5				375	425	456	645	2,850	4,340	1,020	514	516
6				360	440	458	577	2,820	4,170	940	504	510
7				352	442	464	572	2,840	3,960	910	501	497
8				365	450	505	630	3,190	3,900	910	516	496
9				389	433	510	876	3,620	3,560	860	519	494
10				424	400	510	1,110	3,920	3,290	780	512	494
11				449	350	531	1,380	4,030	2,990	690	514	497
12				449	407	625	1,480	4,600	2,500	640	510	494
13				430	676	611	1,440	5,390	2,410	601	505	484
14				430	692	488	1,400	6,340	2,390	591	499	494
15				459	615	505	1,560	6,770	2,480	587	505	494
16				422	554	538	1,750	6,600	2,580	591	507	494
17				462	507	492	2,080	6,090	2,560	615	514	508
18				418	458	495	2,880	5,050	2,020	613	514	494
19				404	418	488	3,570	4,340	1,770	591	514	492
20				361	388	568	4,100	3,690	1,490	559	515	494
21				444	381	531	4,810	3,520	1,700	527	512	494
22				409	360	514	4,820	3,450	1,780	501	512	497
23				379	352	522	4,900	3,700	1,700	549	514	499
24				371	398	554	4,560	4,030	1,720	497	514	499
25				379	310	480	3,640	4,380	1,660	484	514	497
26				343	363	448	3,220	4,830	1,560	563	510	494
27				337	401	480	3,740	4,980	1,490	730	491	488
28				343	410	515	4,060	4,600	1,340	919	488	476
29				334	-	497	4,170	4,280	1,250	851	505	484
30				322	-	476	3,560	3,900	1,220	816	510	484
31				334	-	536	-	3,920	-	518	507	-

Discharge, in second-feet, of Truckee River at Farad, Calif. 1938-39--Continued

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	420	456	435	441	411	418	514	843	484	491	509	493
2	456	411	444	434	418	418	513	733	451	491	506	495
3	422	398	444	437	416	418	523	712	502	486	504	495
4	439	398	444	441	410	411	566	628	547	495	502	501
5	505	418	448	518	408	413	594	514	520	493	502	499
6	516	398	444	460	411	415	758	495	504	493	504	501
7	505	391	441	439	411	418	769	477	516	491	504	499
8	418	391	435	441	394	422	857	491	523	500	506	500
9	411	388	418	435	430	430	827	514	518	498	508	500
10	409	401	430	430	425	422	781	547	516	498	504	500
11	408	398	411	430	404	417	758	638	516	495	500	509
12	404	381	422	429	408	422	775	566	514	493	499	516
13	404	418	450	426	402	426	663	542	502	491	499	516
14	418	418	450	418	403	430	551	590	504	493	498	508
15	510	476	452	421	404	441	509	590	508	493	500	502
16	611	468	448	417	409	472	406	547	502	492	500	500
17	545	442	444	417	410	501	441	477	517	493	502	495
18	524	418	435	420	411	545	472	486	504	492	504	495
19	513	417	433	430	420	601	517	516	502	492	504	493
20	505	421	435	437	416	775	542	526	509	493	504	481
21	510	428	431	433	418	590	561	551	495	500	505	479
22	422	417	426	422	420	663	547	568	495	498	509	477
23	422	408	426	416	422	769	432	518	514	516	509	474
24	422	408	430	415	422	758	428	518	500	519	501	472
25	418	433	424	422	424	704	448	542	502	518	506	495
26	426	426	430	428	415	653	472	604	495	516	502	547
27	408	430	437	426	424	437	504	668	493	515	500	523
28	422	430	437	421	426	376	561	570	498	516	498	511
29	415	433	437	426	-	348	653	580	491	518	499	504
30	441	435	437	426	-	428	821	537	493	520	498	500
31	452	-	441	417	-	495	-	498	-	514	493	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
January 1938	12,224	462	322	394	24,250
February	12,045	692	310	430	23,980
March	15,856	625	448	511	31,450
April	69,999	4,900	554	2,333	133,300
May	128,350	6,770	2,370	4,140	254,600
June	77,600	4,340	1,220	2,587	153,900
July	23,063	1,210	464	744	45,740
August	15,767	519	488	509	31,270
September	14,927	517	476	498	29,610
The period	-	-	-	-	733,500
October 1938	14,101	611	404	455	27,970
November	12,555	476	381	418	24,900
December	13,519	462	411	436	26,810
Calendar year 1938	410,006	6,770	310	1,125	813,200
January 1939	13,373	518	415	431	26,520
February	11,592	430	394	414	22,990
March	15,436	775	348	498	30,820
April	17,768	857	406	582	35,240
May	17,636	843	477	569	34,980
June	15,165	547	481	506	30,080
July	15,513	520	486	500	30,770
August	15,579	509	493	503	30,900
September	14,980	547	472	499	29,710
Water year 1938-39	177,217	857	348	466	351,500

Donner Creek near Truckee, Calif.

Location.- Water-stage recorder, lat. 39°19'15", long.120°12'10", in SE¼ sec. 16, T. 17 N., R. 16 E., 1 mile downstream from Cold Creek and 1½ miles southwest of Truckee. Altitude, about 5,800 feet.

Drainage area.- 30 square miles.

Records available.- October 1902 to September 1915, April 1928 to September 1939.

Average discharge.- 10 years (1928-35, 1936-39), 56.2 second-feet.

Extremes.- Maximum daily discharge during water year 1936-37, 397 second-feet May 29; minimum daily, 4 second-feet Oct. 1 to Dec. 12, Dec. 28, 29, Sept. 21-30.
 Maximum discharge during water year 1937-38, 1,800 second-feet Dec. 11 (gage height, 6.20 feet); minimum daily, 4 second-feet Oct. 1-7, 15-17, Nov. 1-8, 11-15, Aug. 23 to Sept. 30.
 Maximum daily discharge during water year 1938-39, 276 second-feet Apr. 30; minimum daily, 3 second-feet July 17 to Aug. 12, Aug. 15 to Sept. 30.
 1902-15, 1928-39: Maximum discharge, 1,800 second-feet Dec. 11, 1937 (gage height, 6.2 feet on outside gage); minimum, less than 1 second-foot during many summers.

Remarks.- Storage at Donner Lake. Record of daily discharge furnished by H. C. Dukes, Federal Court Watermaster, in cooperation with Truckee-Carson Irrigation District.

Discharge, in second-feet, 1936-39

1936-37

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	4	4	5	7	6	124	183	290	46	6	6
2	4	4	4	6	7	5	127	210	266	42	6	8
3	4	4	4	7	7	5	128	221	287	34	6	9
4	4	4	4	8	7	5	132	275	253	30	6	9
5	4	4	4	8	7	5	138	310	227	28	6	8
6	4	4	4	8	7	5	143	313	208	25	6	8
7	4	4	4	8	7	5	142	320	189	21	6	8
8	4	4	4	8	7	5	136	287	178	20	6	8
9	4	4	4	8	7	5	132	292	160	18	5	6
10	4	4	4	7	7	5	152	278	132	17	5	5
11	4	4	4	7	7	5	130	292	116	15	5	5
12	4	4	4	7	7	35	128	326	112	14	5	5
13	4	4	4	8	7	90	130	367	116	13	5	5
14	4	4	5	8	10	61	132	357	116	12	5	5
15	4	4	5	8	10	92	180	341	116	10	5	5
16	4	4	6	7	12	93	222	377	263	10	5	5
17	4	4	6	7	12	94	222	341	256	9	5	5
18	4	4	7	7	12	96	212	320	198	9	5	5
19	4	4	7	7	11	97	220	281	145	8	5	5
20	4	4	8	7	10	99	235	287	112	8	5	5
21	4	4	8	7	9	100	264	243	109	7	5	4
22	4	4	8	7	9	105	258	253	99	7	5	4
23	4	4	8	7	9	108	235	275	87	7	5	4
24	4	4	8	7	8	111	210	290	66	7	5	4
25	4	4	8	7	7	114	205	284	57	7	5	4
26	4	4	8	7	7	116	194	243	76	7	5	4
27	4	4	6	7	7	116	174	264	77	6	6	4
28	4	4	4	7	7	118	180	367	68	6	6	4
29	4	4	4	7	-	118	156	367	56	6	6	4
30	4	4	5	7	-	117	164	329	53	6	6	4
31	4	-	5	7	-	119	-	278	-	6	6	-

Discharge, in second-feet, of Donner Creek near Truckee, Calif. 1936-37--Continued

1937-38

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	4	7	31	21	11	56	276	526	135	18	4
2	4	4	7	32	19	11	56	259	304	119	10	4
3	4	4	6	32	46	11	59	245	232	111	9	4
4	4	4	6	31	111	11	61	243	452	99	8	4
5	4	4	6	28	142	12	61	256	460	90	7	4
6	4	4	7	20	143	10	59	262	456	98	7	4
7	4	4	8	14	147	10	59	267	460	93	7	4
8	5	4	7	14	132	10	61	295	446	97	6	4
9	5	5	6	13	130	10	68	329	418	75	6	4
10	5	5	366	13	172	10	75	361	387	74	6	4
11	5	4	1,598	13	281	11	81	401	374	69	6	4
12	5	4	980	12	281	15	86	445	341	69	6	4
13	6	4	715	12	281	69	83	508	313	69	5	4
14	5	5	628	16	285	91	87	564	341	68	5	4
15	4	5	505	24	227	90	130	600	381	65	5	4
16	4	5	243	31	227	90	172	600	391	57	5	4
17	4	7	166	32	227	88	183	572	304	66	5	4
18	5	6	130	31	227	87	235	547	183	53	5	4
19	5	5	101	31	227	86	295	512	186	50	5	4
20	5	9	78	41	227	87	335	465	151	45	5	4
21	5	17	55	54	227	87	357	442	170	39	5	4
22	5	12	43	54	227	85	370	454	166	37	5	4
23	5	9	40	52	200	83	377	481	191	33	4	4
24	5	9	40	52	91	87	354	498	187	24	4	4
25	5	8	38	40	11	85	316	512	178	22	4	4
26	5	7	34	15	11	82	298	551	170	24	4	4
27	5	7	35	15	11	79	304	564	158	27	4	4
28	5	6	32	11	11	78	310	551	138	22	4	4
29	5	7	30	11	-	75	313	530	130	18	4	4
30	5	6	30	12	-	59	284	525	135	15	4	4
31	5	-	31	18	-	57	-	530	-	14	4	-

1938-39

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4	8	6	6	15	12	55	260	36	6	3	3
2	4	7	6	6	13	11	64	257	34	6	3	3
3	4	7	6	6	15	11	71	225	32	6	3	3
4	60	8	6	6	13	11	72	139	29	5	3	3
5	90	10	6	10	11	11	168	120	27	5	3	3
6	95	9	7	15	11	10	268	60	25	5	3	3
7	44	8	6	13	14	10	276	63	24	5	3	3
8	5	8	6	13	14	10	276	66	24	5	3	3
9	4	7	6	13	14	9	268	64	24	4	3	3
10	4	6	6	15	14	9	257	76	24	4	3	3
11	4	6	7	11	14	9	257	72	23	4	3	3
12	4	7	7	13	14	8	249	58	22	4	3	3
13	4	7	8	13	14	8	231	111	20	4	4	3
14	4	5	8	13	14	7	212	164	18	4	4	3
15	63	5	7	13	14	7	128	162	18	4	3	3
16	122	5	7	11	14	8	59	96	16	4	3	3
17	119	5	5	11	14	10	64	53	15	3	3	3
18	114	5	5	12	14	12	75	52	14	3	3	3
19	108	5	5	8	14	92	51	46	15	3	3	3
20	103	5	6	8	14	182	83	43	12	3	3	3
21	50	5	6	7	14	189	88	43	12	3	3	3
22	6	5	6	9	14	189	78	43	11	3	3	3
23	5	6	6	9	14	186	70	43	10	3	3	3
24	5	5	6	12	13	185	63	50	9	3	3	3
25	5	5	6	12	12	121	60	66	9	3	3	3
26	5	5	6	11	12	47	60	207	8	3	3	3
27	5	5	6	12	9	36	70	111	8	3	3	3
28	5	5	6	13	12	35	82	46	7	3	3	3
29	5	5	6	8	-	35	155	47	7	3	3	3
30	5	5	6	10	-	45	276	48	6	3	3	3
31	7	-	6	13	-	52	-	41	-	3	3	-

Discharge, in second-feet, of Donner Creek near Truckee, Calif., 1936-39--Continued

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October 1936	124	4	4	4.0	246
November.....	120	4	4	4.0	238
December.....	169	8	4	5.5	335
Calendar year 1936.....	31,590	653	4	86.3	62,650
January	223	8	5	7.2	442
February.....	231	12	7	8.2	458
March.....	2,061	119	5	67.1	4,130
April.....	5,163	264	124	172	10,240
May.....	9,171	387	183	291	18,190
June.....	4,468	290	53	147	8,660
July.....	461	48	6	14.9	614
August.....	168	6	5	5.4	353
September.....	165	9	4	5.5	327
Water year 1936-37	22,544	387	4	67.8	44,710
October 1937	146	6	4	4.7	290
November.....	184	17	4	6.1	365
December.....	5,976	1,596	6	197	11,850
Calendar year 1937	28,437	1,598	4	77.9	56,400
January 1938	803	54	11	25.9	1,600
February.....	4,282	281	11	153	8,490
March.....	1,677	91	10	54.1	3,330
April.....	5,585	377	56	184	11,080
May.....	13,650	600	245	447	27,070
June.....	8,707	526	130	287	17,270
July.....	1,667	135	14	59.9	3,680
August.....	162	18	4	5.9	361
September.....	120	4	4	4.0	238
Water year 1937-38	43,169	1,598	4	118	85,610
October 1938	1,062	122	4	34.3	2,110
November.....	184	10	5	6.1	365
December.....	192	8	5	6.2	381
Calendar year 1938	39,301	600	4	106	75,060
January 1939	330	15	6	10.6	655
February.....	377	15	11	13.5	748
March.....	1,568	189	7	50.6	3,110
April.....	4,214	276	55	140	8,360
May.....	2,634	260	41	94.6	5,820
June.....	537	36	6	17.9	1,070
July.....	120	6	3	3.9	238
August.....	95	4	3	3.1	168
September.....	90	3	3	3.0	179
Water year 1938-39	11,703	276	3	32.1	23,220

Deep Creek above Adel, Oreg.

Location.- Water-stage recorder, lat. 42°11', long. 119°59', in E¹/₄ sec. 15, T. 39 S., R. 23 E., a third of a mile downstream from Drake Creek and 5 miles west of Adel. Zero of gage is 4,965 feet above mean sea level (river profile map).

Drainage area.- 249 square miles.

Records available.- September 1922 to September 1923 and October 1932 to September 1939, in reports of U. S. Geological Survey. September 1922 to September 1923 and October 1929 to September 1936 in reports of State engineer.

Average discharge.- 11 years (1922-23, 1929-39), 84.9 second-feet.

Extremes.- Maximum discharge during year, 890 second-feet Mar. 20 (gage height, 4.02 feet); minimum, 4.5 second-feet Aug. 23 (gage height, 0.20 foot).
1922-23, 1932-39: Maximum discharge, 5,030 second-feet Dec. 11, 1938 (gage height, 7.5 feet, from floodmark), from rating curve extended above 1,200 second-feet on basis of velocity-area studies); minimum, 1.7 second-feet July 20, 27-29, 1934.

Remarks.- Records good except those for periods of ice effect and those for period of no gage-height record, which are fair. Diversions for irrigation above station.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4				Nov. 5 to Sept. 30			
0.6	18	1.4	91	0.2	4.5	1.0	43
.8	29	1.6	119	.4	9.4	1.2	62
1.0	45	1.8	152	.6	17	1.4	85
1.2	66			.8	28	1.6	113
						1.8	148
						2.0	187
						2.3	253
						2.6	328
						3.0	447
						3.4	595
						3.8	790
						4.2	1,000

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	37	23	20	20	*20	353	179	40	11	5.4	6.1
2	25	34	25	22	*20	19	376	173	37	10	5.6	6.3
3	22	34	26	23	*20	19	394	153	33	10	5.9	6.3
4	24	130	128	26	20	18	431	161	29	12	5.9	6.3
5	22	101	72	22	20	*18	362	156	33	14	5.9	6.1
6	21	51	59	21	18	*18	325	144	35	14	5.4	6.1
7	20	41	62	*22	*18	*20	310	134	34	12	5.4	6.3
8	20	40	57	20	*18	*20	328	127	30	11	5.9	6.3
9	20	37	55	18	*18	*20	307	118	28	11	5.9	6.3
10	20	27	41	18	*18	*20	285	120	27	11	5.6	5.9
11	19	*26	49	20	*19	22	267	125	23	7.3	5.9	6.1
12	18	*27	41	18	20	28	270	108	20	6.8	5.9	6.8
13	18	27	23	20	20	33	223	94	16	6.6	5.9	8.4
14	18	26	23	19	20	28	200	86	15	6.6	5.9	8.1
15	22	27	23	18	20	34	195	90	15	6.6	5.6	7.6
16	24	37	23	*15	*20	86	189	98	40	6.6	5.6	7.3
17	22	41	23	20	*20	176	187	58	53	6.6	5.6	6.8
18	23	34	26	20	*20	302	191	78	46	6.8	5.4	6.8
19	23	31	22	20	20	356	215	97	41	6.6	5.4	6.6
20	23	32	22	*20	*20	515	226	127	37	6.3	5.4	6.6
21	23	27	23	*20	*21	665	223	116	29	6.6	5.4	6.6
22	22	24	22	*20	*21	575	226	137	24	6.6	6.4	6.6
23	22	20	20	18	19	515	212	116	20	6.3	5.4	6.3
24	23	21	18	18	20	498	221	94	18	5.9	6.3	6.1
25	23	20	18	18	19	480	235	75	16	5.4	6.3	6.8
26	22	20	18	18	20	498	204	70	14	5.6	6.1	7.1
27	22	20	18	18	19	350	181	62	14	5.9	5.6	6.8
28	22	20	18	18	20	302	181	54	13	5.9	5.6	6.8
29	23	20	18	18	-	310	187	49	12	5.9	6.1	6.8
30	21	23	21	20	-	284	183	43	11	5.9	6.1	6.8
31	39	-	23	*20	-	302	-	40	-	5.4	6.1	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	685	31	18	22.1	1,560
November.....	1,055	130	20	35.2	2,090
December.....	1,038	128	18	33.5	2,060
Calendar year 1938	67,809	1,100	14	186	134,500
January.....	608	26	15	19.6	1,210
February.....	548	21	18	19.6	1,050
March.....	6,547	665	18	211	12,990
April.....	7,665	431	161	256	15,200
May.....	3,322	179	40	107	6,590
June.....	603	53	11	26.8	1,590
July.....	244.2	14	5.4	7.88	484
August.....	177.9	6.3	5.4	5.74	353
September.....	199.8	8.4	5.9	6.66	396
Water year 1938-39	22,892.9	665	5.4	62.7	45,410

*Stage-discharge relation affected by ice; discharge computed on basis of weather records and records for Chewaucan River above Conn ditch near Paisley.

†No gage-height record; discharge computed on basis of weather records and record for Chewaucan River above Conn ditch, near Paisley.

Chewaucan River above Conn ditch, near Paisley, Oreg.

Location.- Water-stage recorder, lat. 42°41', long. 120°35', in SW $\frac{1}{4}$ sec. 27, T. 33 S., R. 18 E., at bridge 20 feet downstream from power plant of R. R. Severin, 700 feet upstream from diversion dam on Conn ditch, a quarter of a mile downstream from Mill Creek, and 2 $\frac{1}{2}$ miles west of Paisley. Zero of gage is 4,504.9 feet above mean sea level (river profile survey).

Drainage area.- 275 square miles.

Records available.- April to September 1912, May 1924 to September 1939. January 1905 to December 1907 and January 1909 to April 1912 at site 2 miles downstream, below Conn ditch. November 1912 to September 1921 at site half a mile upstream, above Mill Creek. Yearly run-off at these sites practically equivalent.

Average discharge.- 29 years (1905-7, 1909-21, 1924-39), 130 second-feet.

Extremes.- Maximum discharge during year, 696 second-feet Mar. 19 (gage height, 3.66 feet); minimum, 3.1 second-feet July 15 (gage height, 0.93 foot); minimum daily, 12 second-feet Aug. 18, 19, 21.

1905-7, 1909-21, 1924-39: Maximum discharge, 4,000 second-feet (estimated) Nov. 23, 1909 (gage height, 9.40 feet, former site and datum); no flow part of Dec. 7, 1927, Dec. 12, 1932 (frozen); minimum daily discharge not determined.

Remarks.- Records good except those for periods of ice effect and those for no gage-height record, which are poor. Low-water flow partly regulated by power plant above station. About 160 acres are irrigated above station.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Nov. 4				Nov. 5 to Sept. 30			
1.6	27	2.2	100	1.3	9.5	2.4	136
1.8	46	2.4	139	1.5	15	2.7	218
2.0	70	2.6	193	1.7	34	3.0	335
				1.9	55	3.5	600
				2.1	82	4.0	920

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	45	45	50	*33	45	242	228	72	30	16	16
2	44	39	43	47	*33	36	260	225	69	31	14	17
3	56	76	56	46	*33	48	299	212	65	30	16	17
4	45	166	79	41	*36	45	326	212	65	36	16	18
5	41	112	69	*40	*36	45	294	203	71	46	16	18
6	41	60	54	*38	*36	36	294	194	71	45	15	18
7	39	58	55	38	*34	45	290	180	65	36	15	18
8	39	59	48	*38	*32	40	330	168	60	30	16	18
9	38	54	50	*37	*32	40	308	168	60	27	16	18
10	38	41	53	37	*34	40	279	166	54	25	14	18
11	37	37	24	40	*36	44	290	163	*50	22	14	18
12	36	29	*30	40	*38	58	304	143	*47	19	14	*20
13	36	*29	*30	40	*40	98	252	134	*45	20	14	*25
14	36	*32	*30	38	46	79	228	128	43	19	14	*24
15	44	*37	*36	35	46	93	232	126	47	19	13	*23
16	44	*42	*40	*33	47	166	242	126	58	21	14	22
17	39	46	*42	30	41	242	245	120	63	22	14	21
18	38	43	*44	41	43	344	263	111	63	20	12	20
19	40	45	*45	41	46	395	294	114	60	19	12	20
20	39	48	*45	39	46	376	304	124	55	19	14	20
21	39	32	*44	39	33	348	317	141	48	18	12	24
22	39	22	*40	29	37	330	330	143	44	18	13	24
23	38	*26	*40	36	46	304	312	130	40	17	14	22
24	39	*28	*42	41	45	299	299	118	38	14	19	20
25	39	*32	44	38	43	299	267	105	36	16	20	22
26	38	*36	45	41	44	299	245	102	36	16	18	22
27	43	*42	42	39	38	221	242	93	36	16	16	22
28	38	*50	52	37	44	197	232	85	34	16	16	21
29	42	*55	51	36	-	194	242	82	31	18	17	22
30	54	54	47	32	-	185	238	82	30	19	17	21
31	47	-	45	*32	-	206	-	76	-	17	16	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,259	56	34	40.6	2,500
November.....	1,454	156	22	48.8	2,900
December.....	1,390	79	24	44.8	2,760
Calendar year 1938.....	77,702	1,360	22	713	154,100
January.....	1,189	50	29	38.4	2,360
February.....	1,098	47	32	39.2	2,190
March.....	5,127	325	36	168	10,310
April.....	8,300	330	228	277	16,450
May.....	4,402	228	76	142	8,730
June.....	1,556	72	30	51.9	3,090
July.....	721	46	14	23.3	1,430
August.....	467	20	12	15.1	926
September.....	609	25	16	20.3	1,210
Water year 1938-39.....	27,652	395	12	75.8	54,860

*Stage-discharge relation affected by ice; discharge computed on basis of weather records, gage heights, and records for Deep Creek above Adel, Oreg.

†No gage-height record; discharge computed on basis of records for Deep Creek above Adel, Oreg.

Silver Creek near Silver Lake, Oreg.

Location.- Water-stage recorder, lat. 43°07', long. 121°04', in SW $\frac{1}{4}$ sec. 28, T. 28 S., R. 14 E., $\frac{1}{2}$ miles downstream from diversion dam of Silver Lake Irrigation District, $\frac{1}{2}$ miles southwest of Silver Lake post office, and 3 miles upstream from Bridge Creek. Zero of gage is 4,361.28 feet above mean sea level (general adjustment of 1929).

Drainage area.- 221 square miles.

Records available.- December 1904 to March 1907, January 1909 to September 1939.

Average discharge.- 29 years (1905-6, 1909-27, 1929-39), including Silver Lake Irrigation District canal, 25.8 second-feet.

Extremes.- Maximum discharge during year, 35 second-feet Apr. 21 (gage height, 2.31 feet); minimum, 0.8 second-foot July 26 (gage height, 1.56 feet).

1904-7, 1909-39: Maximum discharge, 1,800 second-feet Mar. 20, 1907 (gage height, 9.08 feet, former datum), from rating curve extended above 700 second-feet; no flow at times in 1931, 1932, 1934, 1937.

Remarks.- Records fair except those for periods of ice effect and period of no gage-height record, which are poor. Flow regulated by storage in reservoir (capacity, 800 acre-feet) above diversion dam, $\frac{1}{2}$ miles upstream; and in Thompson Valley Reservoir (capacity, 17,400 acre-feet), 11 miles upstream, both of which are owned by the Silver Lake Irrigation District.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)
(Shifting-control method used Apr. 26 to May 13)

Oct. 1 to May 13		May 14 to Sept. 30	
1.6	2.0	1.6	1.1
1.8	5.8	1.8	5.5
2.0	15	2.0	14.5
2.3	34	2.2	26

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	3.3	2.9	3.0	*2.8	*2.8	20	23	14	11	1.7	1.4
2	6.2	3.3	2.9	3.0	*2.8	2.8	21	19	14	7.0	1.7	1.4
3	6.2	3.3	2.9	3.0	*2.8	2.9	21	18	14	6.6	1.7	1.4
4	6.2	3.6	2.9	3.0	*2.9	*2.9	21	19	14	6.6	1.7	1.4
5	6.2	3.0	2.9	3.0	2.9	*2.8	20	19	16	6.6	1.7	1.4
6	6.2	3.0	3.0	*3.0	2.9	2.8	20	15	14	4.5	1.7	1.4
7	6.2	3.0	3.0	*3.0	*2.9	2.9	20	15	13	4.5	1.7	1.2
8	6.2	3.0	3.0	*3.0	*2.9	2.8	21	14	14	4.5	1.7	1.2
9	5.5	3.0	3.0	*3.0	*2.9	2.8	20	14	14	4.5	1.7	1.1
10	4.4	3.0	*3.0	*3.0	*2.9	2.8	17	14	14	3.0	1.7	1.1
11	4.4	3.0	*3.0	3.0	*2.8	2.8	18	14	14	2.2	1.6	1.2
12	4.4	*3.0	*3.0	2.9	2.8	2.9	19	14	14	1.6	1.6	1.2
13	4.4	*3.0	*3.0	*2.9	2.8	2.8	19	14	14	1.7	1.6	1.2
14	4.4	2.9	*3.0	3.0	2.9	3.0	19	13	14	1.6	1.6	1.4
15	4.7	2.9	*3.1	2.9	2.9	2.8	20	14	14	2.2	1.6	1.4
16	4.7	2.9	*3.3	*2.9	*3.0	2.8	23	14	14	2.4	1.6	1.2
17	4.7	2.9	*3.4	2.9	2.9	2.8	27	14	16	2.3	1.7	1.2
18	4.7	2.9	*3.5	2.9	2.9	2.9	28	15	16	2.3	1.6	1.1
19	4.4	2.9	*3.5	2.9	2.9	2.9	26	14	14	2.3	1.6	1.1
20	4.1	2.8	*3.3	*2.9	*2.9	3.0	27	14	14	2.3	1.6	1.1
21	3.8	*2.7	*3.0	*2.9	*2.9	4.7	32	14	14	2.2	1.6	1.1
22	3.6	*2.7	*2.9	*2.9	2.9	20	33	15	14	2.0	1.6	1.1
23	3.6	*2.7	*2.8	*2.9	2.9	23	32	15	14	2.0	1.6	1.1
24	3.6	*2.7	*2.9	*2.9	2.9	23	29	14	12	2.0	1.6	1.1
25	3.6	*2.7	3.0	*2.9	2.9	23	25	16	13	2.2	1.6	1.1
26	3.3	*2.7	*3.0	*2.9	*3.0	23	25	15	13	1.6	1.4	1.1
27	3.3	*2.7	*3.0	2.9	2.8	†23	25	14	13	1.7	1.6	1.1
28	3.3	*2.7	2.9	2.9	2.8	†24	25	14	13	1.7	1.6	1.1
29	3.6	*2.8	2.9	2.8	-	24	26	14	13	1.7	1.6	1.1
30	3.6	2.9	2.9	*2.8	-	23	25	15	12	1.7	1.6	1.1
31	3.3	-	2.9	*2.8	-	20	-	14	-	1.7	1.4	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	143.0	6.2	3.3	4.61	284
November.....	88.0	3.6	2.7	2.93	175
December.....	93.6	3.5	2.7	3.02	186
Calendar year 1938.....	8,793.5	324	1.1	24.1	17,440
January.....	90.8	3.0	2.8	2.93	180
February.....	80.6	3.0	2.8	2.88	160
March.....	287.7	24	2.8	9.28	571
April.....	704	33	1.7	23.5	1,400
May.....	470	23	1.3	15.2	932
June.....	416	16	1.2	13.9	825
July.....	100.2	11	1.6	3.23	199
August.....	50.3	1.7	1.4	1.62	100
September.....	36.1	1.4	1.1	1.20	72
Water year 1938-39.....	2,560.3	33	1.1	7.01	5,080

*Stage-discharge relation affected by ice; discharge computed on basis of weather records and recorder chart during ice-free periods.

†No gage-height record; discharge interpolated.

Silver Lake Irrigation District canal near Silver Lake, Oreg.

Location.- Staff gage, lat. 43°05', long. 121°05', in NE¼ sec. 5, T. 29 S., R. 14 E., at diversion dam of Silver Lake Irrigation District, 2½ miles southwest of Silver Lake post office.

Records available.- October 1922 to September 1928, October 1929 to September 1939.

Average discharge.-16 years, 4.57 second-feet.

Extremes.- Maximum discharge observed during year, 35 second-feet May 3-11; no flow at times.

1922-28, 1929-39: Maximum discharge observed, 60 second-feet June 26-29, 1923; no flow at times.

Remarks.- Records fair. Discharge interpolated for days of no gage-height record, Apr. 23, 26, May 17, 22, 28, 31, June 8, July 3, 7, 11. Canal diverts from Silver Creek water that is released from Thompson Valley Reservoir. Gage readings furnished by Silver Lake Irrigation District.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0	29	31	22		
2							0	31	32	24		
3							0	33	32	24		
4							0	35	28	24		
5							0	35	28	24		
6							0	35	26	24		
7							0	35	26	24		
8							0	35	25	23		
9							0	35	25	21		
10							0	35	25	14		
11							0	15	24	13		
12							0	0	24	13		
13							0	16	24	2.0		
14							0	32	25	0		
15							0	33	25	0		
16							0	33	24	0		
17							1.5	33	22	0		
18							4.5	33	20	0		
19							7.5	33	19	0		
20							12	33	19	0		
21							20	33	19	0		
22							15	33	19	0		
23							15	33	19	0		
24							15	33	19	0		
25							15	33	19	0		
26							15	32	19	0		
27							16	32	19	0		
28							22	32	19	0		
29							26	32	19	0		
30							27	32	19	0		
31							-	31	-	0		
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	0	0	0	0	0	0						
November.....	0	0	0	0	0	0						
December.....	0	0	0	0	0	0						
Calendar year 1938.....	3,154.4	37	0	8.64	6,260							
January.....	0	0	0	0	0							
February.....	0	0	0	0	0							
March.....	0	0	0	0	0							
April.....	211.5	27	0	7.05	420							
May.....	957	35	0	30.9	1,900							
June.....	692	32	19	23.1	1,370							
July.....	252.0	24	0	8.13	500							
August.....	0	0	0	0	0							
September.....	0	0	0	0	0							
Water year 1938-39.....	2,112.5	35	0	5.79	4,190							

Silvies River near Burns, Oreg.

Location.- Water-stage recorder, lat. 45°43', long. 119°10', in NW¼ sec. 31 (revised), T. 21 S., R. 30 E. (revised), 1 mile downstream from dam site for proposed lower Silvies Reservoir and 11 miles northwest of Burns.

Drainage area.- 934 square miles.

Records available.- May 1903 to July 1906, December 1908 to September 1939.

Average discharge.- 26 years (1903-5, 1909-12, 1917-21, 1922-39), 132 second-feet.

Extremes.- Maximum discharge during year, 1,250 second-feet Mar. 20 (gage height, 11.40 feet); minimum, 1.8 second-feet July 24, 25.
1903-6, 1908-39: Maximum discharge, 4,730 second-feet Apr. 15, 1904 (gage height, 17.12 feet, former site and datum); no flow July 19 to Sept. 22, 1934.

Remarks.- Records fair except those for periods of ice effect, Nov. 20-23, Dec. 12, 20-23, Feb. 3 to Mar. 11, and those for periods of no gage-height record, Dec. 6-11, 13-19, Sept. 3-8, which were computed on basis of weather reports and records for Malheur River near Drewsey and are poor. Small areas on Silvies River above station are irrigated with flood water.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	21	27	38	45	45	891	184	38	6	3	5
2	11	21	25	38	45	42	960	176	34	6	3	6
3	12	30	30	49	45	42	1,060	148	31	5	4	6
4	13	27	33	38	45	40	1,080	135	28	6	3	6
5	17	32	35	41	45	35	1,060	122	28	7	3	7
6	14	32	35	35	45	35	980	113	27	7	3	7
7	13	26	35	36	45	35	859	93	21	7	3	8
8	12	31	38	40	45	33	751	89	20	6	3	8
9	14	33	42	38	45	35	697	74	20	5	3	8
10	14	32	30	40	45	40	648	77	18	5	3	8
11	13	30	25	41	45	60	600	77	16	4	3	8
12	12	32	20	42	45	86	567	81	15	4	3	8
13	12	31	20	38	45	222	534	60	14	4	3	8
14	11	30	19	39	45	208	502	56	13	3	3	9
15	12	32	17	42	45	159	482	50	12	3	3	9
16	11	32	20	35	45	258	432	47	12	3	3	9
17	11	32	22	39	45	624	392	49	12	3	3	8
18	11	32	23	40	45	627	362	50	14	3	4	6
19	11	32	23	36	45	1,040	342	47	16	2	4	6
20	11	32	23	35	45	1,180	332	46	18	2	4	5
21	11	30	25	33	45	1,080	322	46	17	2	4	5
22	11	30	25	34	45	943	292	51	15	2	5	4
23	12	29	25	35	45	649	292	63	14	2	7	3
24	12	29	25	30	45	624	282	71	12	2	6	3
25	12	28	25	38	45	672	292	83	11	5	6	3
26	13	26	27	40	45	765	272	76	10	4	6	3
27	13	24	30	43	45	907	243	73	10	3	5	3
28	14	22	32	45	45	960	234	65	9	3	5	3
29	15	24	37	45	-	875	216	58	8	3	5	3
30	16	27	38	47	-	859	180	52	7	3	5	3
31	19	-	36	45	-	875	-	41	-	3	5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	393	19	10	12.7	780
November.....	861	33	21	28.7	1,710
December.....	870	42	17	28.1	1,730
Calendar year 1938.....	81,815	1,760	7	224	162,300
January.....	1,212	47	33	39.1	2,400
February.....	1,280	45	45	45.0	2,500
March.....	14,154	1,180	33	457	25,070
April.....	16,156	1,080	180	539	32,040
May.....	2,453	164	41	79.1	4,870
June.....	520	38	7	17.3	1,030
July.....	123	7	2	4.0	244
August.....	123	7	3	4.0	244
September.....	178	9	3	5.9	353
Water year 1938-39.....	38,303	1,180	2	105	75,970

Peak discharge.- Mar. 13 (11 a.m.) 305 sec.-ft.; Mar. 14 (3 p.m.) 240 sec.-ft.

Donner and Blitzen River near Frenchglen, Oreg.

Location.— Water-stage recorder and concrete control, lat. 42°47', long. 118°52', in NW¼ sec. 20, T. 32 S., R. 32 E., 1½ miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2 miles downstream from Fish Creek, and 3½ miles southeast of Frenchglen.

Drainage area.— 180 square miles.

Records available.— December 1937 to September 1939. January 1909 to November 1910, fragmentary records at sites downstream, below several irrigation diversions; May 1910 to September 1921, at site 1½ miles downstream in SW¼ sec. 8, above diversions (published as Donner and Blitzen River near Diamond); records equivalent.

Extremes.— Maximum discharge during year, 1,380 second-feet Mar. 24 (gage height, 5.12 feet), from rating curve extended above 650 second-feet; minimum observed, 12 second-feet Jan. 21 (gage height, 1.73 feet).

1909-21, 1937-39: Maximum discharge, about 2,200 second-feet Mar. 3, 1921 (gage height, 6.6 feet, former site and datum, from floodmark), from rating curve extended above 500 second-feet; minimum, that of Jan. 21, 1939.

Remarks.— Records good except those for periods of ice effect, periods of no gage-height record, and period Mar. 15-24, which are fair. No diversion or regulation above station. Gage-height record collected in cooperation with U. S. Biological Survey.

Rating tables, water year 1938-39 except periods of ice effect (gage height, in feet, and discharge, in second-feet)

Oct. 1 to Mar. 19				Mar. 20 to Sept. 30			
2.0	27	3.0	190	2.0	27	2.7	120
2.2	42	3.3	295	2.2	42	3.0	210
2.4	62	3.6	420	2.4	65	3.3	325
2.7	110					4.2	790

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	51	58	46	46	*40	352	297	157	*63	34	29
2	41	50	56	46	†40	*40	348	309	145	*53	33	30
3	41	50	55	46	49	*40	348	309	148	*63	32	30
4	42	146	53	43	45	*40	352	313	154	*73	32	29
5	41	78	58	48	44	*40	309	223	122	*67	31	29
6	41	53	51	42	40	*35	289	257	113	*59	31	29
7	41	55	53	*37	41	*35	285	249	105	*45	31	29
8	41	56	61	51	45	*35	313	261	109	*42	31	30
9	41	55	55	†45	47	39	285	277	116	*43	31	30
10	41	53	48	44	47	39	238	301	122	*59	31	28
11	41	51	†31	42	43	45	235	257	130	*55	30	28
12	40	†40	28	43	42	71	242	238	120	*53	30	30
13	40	*35	33	41	41	66	203	231	125	53	30	35
14	40	*35	44	42	42	46	178	238	125	53	30	33
15	49	*40	58	42	42	70	175	249	109	47	30	32
16	46	*45	56	†35	38	126	175	245	100	47	30	31
17	44	*45	52	45	†45	160	182	231	102	43	29	30
18	45	*45	56	†45	†48	253	200	210	105	42	29	29
19	45	*40	54	†42	†40	403	220	186	111	41	29	28
20	44	37	50	†40	†35	660	228	175	109	40	28	28
21	43	†34	50	†36	†45	761	238	163	102	39	28	28
22	43	34	45	33	†40	470	242	151	98	33	28	29
23	43	37	50	41	43	406	220	154	102	37	29	29
24	43	43	†45	38	41	648	217	140	93	33	30	28
25	43	50	†40	41	37	642	196	132	89	33	30	29
26	43	46	†35	45	*40	537	178	130	84	34	30	29
27	43	46	49	46	*40	330	192	148	77	34	29	29
28	43	54	48	42	*40	281	238	186	78	33	29	29
29	45	56	46	44	-	277	309	249	80	33	29	29
30	55	55	45	42	-	261	301	255	70	34	29	29
31	51	-	45	†40	-	297	-	203	-	37	29	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	1,341	55	40	43.3	2,660
November.....	1,515	146	34	50.5	3,000
December.....	1,513	63	28	48.8	3,000
Calendar year 1938.....	52,558	740	28	144	104,200
January.....	1,313	51	33	42.4	2,600
February.....	1,186	49	35	42.4	2,350
March.....	7,193	761	35	232	14,270
April.....	7,491	352	175	250	14,860
May.....	7,047	313	130	227	13,980
June.....	3,500	157	70	110	6,550
July.....	1,409	70	33	45.5	2,790
August.....	932	34	28	30.1	1,850
September.....	985	35	28	29.5	1,750
Water year 1938-39.....	35,125	761	28	96.2	69,670

*No gage-height record; daily discharge computed on basis of weather records and range in stage.
†Stage-discharge relation affected by ice part of day; discharge computed from graph during periods of no apparent effect.

Donner und Blitzen River near Voltage, Oreg.

Location.- Water-stage recorder, lat. 43°16', long. 118°51', in SW¼ sec. 2, T. 27 S., R. 31 E., just downstream from Sodhouse diversion dam of U. S. Biological Survey, 1½ miles south of Sodhouse lane and headquarters of Malheur Migratory Waterfowl Refuge, and 2 miles southwest of former post office at Voltage. Zero of gage is 4,097.58 feet above mean sea level (surveys of Biological Survey). Prior to June 16, 1939, staff gage 40 feet downstream. Auxiliary staff gage at bridge at Sodhouse lane; zero of gage is 4,091.17 feet above mean sea level (general adjustment of 1929).

Records available.- February 1938 to September 1939. April 1916 to June 1919, March 1921 to June 1922, fragmentary records including diversions and overflow through 16 culverts crossing Sodhouse lane at site 1½ miles downstream.

Extremes.- Maximum discharge observed during year, 416 second-feet Mar. 29 (gage height, 6.70 feet at Sodhouse lane); minimum discharge, 5 second-feet July 28 to Aug. 7, 1916-19, 1921-22, 1937-39; Maximum discharge observed, 800 second-feet May 21, 1917 (gage height, 3.5 feet, former site and datum); little or no flow at times from June to August 1918.

Remarks.- Records poor to June 15, fair thereafter. Gage read about twice a week to June 15, but no readings in period Apr. 1-27; discharge interpolated for days of no gage reading and for period when recorder stopped, Sept. 22-25. Most of river flow diverted above station for irrigation and for flooding waterfowl refuge; Kado and Springer canals divert water below station. (Gage readings furnished by U. S. Biological Survey.)

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	35	76	88	94	94	385	16	14	12	5	9
2	26	54	73	92	72	86	366	20	13	12	5	9
3	31	73	79	96	49	79	348	24	13	12	5	8
4	34	72	84	100	61	72	329	28	12	12	5	11
5	37	71	90	105	74	64	311	32	12	12	5	21
6	34	69	90	109	86	56	292	26	13	18	6	23
7	31	68	90	113	68	49	273	19	13	14	5	14
8	28	67	90	117	50	42	255	18	14	10	6	11
9	26	66	90	122	50	34	236	16	14	10	6	9
10	23	65	90	117	51	48	218	16	14	13	6	8
11	20	64	75	112	49	63	199	17	13	10	6	10
12	17	62	60	94	48	78	181	17	13	9	7	9
13	18	61	70	76	46	92	162	17	14	8	7	8
14	19	60	80	69	60	106	144	17	14	12	7	8
15	32	68	89	63	75	121	128	18	14	14	7	8
16	44	75	99	56	72	136	107	19	14	12	7	8
17	57	82	95	34	68	150	88	18	14	10	8	8
18	57	90	90	11	69	190	70	18	16	9	10	8
19	57	76	86	60	69	230	51	17	14	9	8	8
20	57	63	80	110	70	270	33	17	13	7	7	8
21	57	49	73	111	67	305	14	17	13	6	7	7
22	58	57	74	112	63	340	14	16	13	6	7	7
23	60	65	75	112	60	365	14	16	13	7	7	7
24	61	73	76	113	56	390	14	16	12	8	7	7
25	58	81	78	114	53	390	14	16	12	7	7	7
26	55	81	79	94	46	396	14	16	12	6	6	7
27	51	81	79	75	46	403	14	15	12	6	6	6
28	48	81	79	81	70	410	14	15	12	5	6	9
29	45	80	79	68	-	416	15	15	13	5	6	15
30	41	79	79	94	-	410	15	14	13	5	6	11
31	38	-	83	94	-	403	-	14	-	5	7	-
Month	Second-foot-days		Maximum	Minimum	Mean	Run-off in acre-feet						
October.....	1,242	61	17	40.1	2,460							
November.....	2,068	90	35	68.9	4,100							
December.....	2,530	99	60	81.6	5,020							
Calendar year	-	-	-	-	-							
January.....	2,832	122	11	91.4	5,620							
February.....	1,745	94	46	62.3	3,460							
March.....	6,288	416	34	203	12,470							
April.....	4,315	385	14	144	8,560							
May.....	560	32	14	18.1	1,110							
June.....	395	15	12	13.2	735							
July.....	221	18	5	6.4	577							
August.....	199	10	5	6.4	395							
September.....	289	23	6	9.6	573							
Water year 1938-39.....	22,754	416	5	62.3	45,130							

Bridge Creek near Frenchglen, Oreg.

Location.- Staff gage, lat. 42°50', long. 118°51', in NW¼ sec. 33, T. 31 S., R. 32½ E., at mouth of canyon, 1,000 feet upstream from road crossing, and 3½ miles northeast of Frenchglen.

Records available.- March 1911 to September 1916, December 1937 to September 1939.

Extremes.- Maximum discharge during year, 230 second-feet (estimated) sometime during Mar. 16-18 (gage height, 3.30 feet, from floodmark); minimum not determined.
1911-16, 1937-39: Maximum discharge observed, that of Mar. 16-18, 1939; minimum observed, 7 second-feet Feb. 24, 25, 1912; Dec. 30, 1937, to Jan. 4, 1938.

Remarks.- Records fair October to February, poor March to September. Discharge for some days may be seriously in error owing to diurnal fluctuation. Staff gage read once daily, with frequent omissions. Discharge estimated or interpolated for days of no gage reading. No diversion or regulation above station. Gage readings furnished by U. S. Biological Survey.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	*12	*13	*12	12	11	*26	14	10			
2	*13	13	13	*12	*12	*11	*24	*14	-			
3	*12	13	*13	12	*11	*11	*21	*14	-			
4	12	16	*13	12	11	11	*19	*14	-			
5	*12	14	13	*12	*11	*11	17	14	10			
6	*12	*14	*13	12	11	11	*16	*14	-			
7	12	14	*13	*12	*11	*11	*16	*14	-			
8	*12	*14	*13	*12	*11	11	*15	*13	10			
9	*12	14	13	12	11	11	*15	13	-			
10	12	*14	13	12	*11	*11	*14	13	-			
11	*12	*14	*13	12	*11	*15	14	*13	-			
12	*12	*14	13	*12	*11	*16	*14	13	10			
13	12	*14	*13	12	11	51	14	*13	-			
14	*13	*14	*13	12	*11	*16	*14	*13	10			
15	14	*14	13	*12	11	120	*14	*13	-			
16	*14	14	*13	12	*11	*110	*14	*12	*11			
17	13	15	13	*12	11	*100	*14	*12	-			
18	12	*14	*12	12	*11	*160	14	*13	-			
19	*12	14	12	*12	*11	*150	*15	*12	-			
20	*12	*14	12	*12	*11	28	*17	12	-			
21	12	14	*12	12	*11	*28	19	*11	-			
22	*12	*14	*12	12	11	28	*19	10	-		110	
23	*12	14	12	12	*11	*28	*18	11	-			
24	*12	*14	*12	*12	11	*28	*17	10	-			
25	12	*14	*12	12	*11	*28	17	*10	-			
26	*12	14	*12	12	*11	28	*17	10	-			
27	*12	*14	12	*12	*11	28	*18	*10	-	111		
28	12	13	*12	*12	*11	*28	*19	*10	-			
29	*12	*13	*12	*12	-	*28	19	10	-			
30	*12	13	12	12	-	*28	*16	*10	-			
31	12	-	*12	12	-	28	-	*10	-			

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	380	14	12	12.3	754
November.....	414	16	12	13.8	821
December.....	389	13	12	12.5	772
Calendar year 1938.....	5,474	118	7	15.0	10,860
January.....	372	12	12	12.0	758
February.....	310	12	11	11.1	615
March.....	1,062	120	11	34.9	2,150
April.....	506	26	14	16.2	1,000
May.....	374	14	10	12.1	742
June.....	330	-	-	11.0	655
July.....	326	-	-	10.5	647
August.....	310	-	-	10.0	615
September.....	300	-	-	10.0	595
Water year 1938-39.....	5,093	120	-	14.0	10,100

*Interpolated.

†Estimated.

‡Discharge measurement.

Trout Creek near Denio, Oreg.

Location.- Water-stage recorder, lat. 42°10', long. 118°28', in SW¼ sec. 26, T. 39 S., R. 36 E., 0.4 mile upstream from bridge at mouth of canyon, 5 miles east of Trout Creek ranch, and 14 miles northeast of Denio. Zero of gage is 4,351.52 feet above mean sea level (general adjustment of 1929).

Records available.- March 1911 to March 1912, April 1922 to November 1923, April 1924 to September 1939 (incomplete prior to 1932).

Discharge.- Maximum discharge during year, 55 second-feet Mar. 25 (gage height, 2.67 feet); minimum, 0.5 second-foot Aug. 31, Sept. 1 (gage height, 1.16 feet).

1911-12, 1922-23, 1925-39: Maximum discharge, 343 second-foot Aug. 1, 1933, from rating curve extended above 125 second-foot; probably no flow at times.

Maximum stage known, 6.0 feet (caused by cloudburst), sometime between 1922 and 1932.

Remarks.- Records fair except those for periods when water-stage recorder was not operating properly, Oct. 1 to Jan. 18, Aug. 1-15; and when stage-discharge relation was affected by drift, Dec. 4, and by ice, Dec. 11, all of which were computed on basis of weather records and records for Donner and Blitzen River near Frenchglen and are poor. Some diversions above station for irrigation of small fields; large diversions for irrigation below station.

Discharge, in second-feet, water year October 1938 to September 1939

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	8	8	7	5.5	6.9	39	29	8.8	3.2	1.1	0.5
2	6	8	8	7	6.9	7.3	43	30	8.8	3.2	1.1	.6
3	6	8	8	7	5.3	5.8	44	29	7.4	3.2	1.1	.6
4	7	16	8	7	6.9	4.4	46	29	7.1	3.9	1.1	.6
5	7	11	7.8	7.1	6.9	4.6	40	28	8.4	4.0	1.1	.6
6	6.5	8	6.2	6.4	6.6	7.8	33	24	7.8	3.4	1.1	.6
7	6.5	9	6	5.3	6.2	6.4	30	24	7.4	3.1	1.1	.6
8	6.5	9	7	6.6	6.4	6.2	36	24	7.1	2.4	1.1	.7
9	6.5	9	7	6	5.3	7.1	35	24	6.0	2.1	1.1	.7
10	6.5	9	7	5	5.3	7.1	32	31	6.2	2.9	1.0	.8
11	6.9	8	6.8	5	6.6	6.9	29	26	5.1	2.1	.8	.8
12	6	6	6	6	6.4	7.1	29	22	4.9	1.8	.8	1.0
13	6	4	4	7	6.4	8.1	19	22	4.2	1.2	.7	1.0
14	6	7	4	7	6.4	5.3	9	22	4.0	1.2	.7	1.1
15	7	8.9	5	7	6.9	8.4	8.4	20	4.0	1.8	.8	1.2
16	9	8.6	6	6	4.4	9.2	8.4	20	5.1	1.4	.7	1.1
17	7.8	8.9	7	6	7.1	10	7.1	20	6.2	1.3	.7	1.1
18	8	9	7	7	7.8	12	7.8	18	6.8	1.4	.7	1.1
19	8	8	7	7.1	6.2	14	13	17	7.1	1.5	.6	1.1
20	7	7	7	6.9	6.0	18	22	18	5.1	1.5	.6	1.1
21	7	5	7	4.6	7.3	26	25	16	4.5	1.7	.6	1.2
22	7	5	6.9	7.1	7.3	30	28	16	5.3	1.7	.6	1.4
23	7	6	8	6.2	5.8	34	34	14	4.5	1.7	.6	1.3
24	7	7	7	6.6	6.0	42	29	12	4.0	1.6	.6	1.3
25	7.3	7	6	7.3	5.5	43	28	11	3.9	1.4	.6	1.4
26	7	7	5	5.5	4.6	39	22	11	2.5	1.1	.6	1.7
27	7	7	9	7.8	4.8	35	22	11	3.1	1.0	.6	1.7
28	7	7	7	6.4	6.0	32	27	11	3.2	1.2	.6	1.8
29	8	8	7	6.6	-	30	34	10	3.4	1.2	.6	1.9
30	9	8	7	6.0	-	28	33	10	3.2	1.1	.6	1.8
31	8	-	7	4.0	-	30	-	9.7	-	1.1	.5	-

Month	Second-foot-days	Maximum	Minimum	Mean	Run-off in acre-feet
October.....	216.8	9.0	5.3	6.99	430
November.....	238.4	16	5.0	7.95	473
December.....	208.7	8.0	4.0	6.73	414
Calendar year 1938.....	10,131.3	232	2.7	27.8	20,100
January.....	197.5	7.8	4.0	6.37	392
February.....	172.8	7.8	4.4	6.17	343
March.....	534.6	43	4.4	17.2	1,060
April.....	812.7	46	7.1	27.1	1,610
May.....	608.7	31	9.7	19.6	1,210
June.....	165.1	8.8	2.5	5.50	327
July.....	81.4	4.0	1.0	1.98	122
August.....	24.5	1.1	.5	0.79	49
September.....	32.4	1.9	.5	1.08	64
Water year 1938-39.....	3,273.6	46	.5	8.97	6,490

In addition to the records of stream flow obtained at gaging stations in the Great Basin and reported on the preceding pages, measurements of flow were made at other points, as indicated in the following table. These include measurements made in the Bear River Basin at points other than gaging stations during the water year 1937-38 but not previously published.

Miscellaneous discharge measurements in the Great Basin during the water year October 1938 to September 1939

Bear River Basin*

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
1938				
Nov. 20	Cottonwood Creek..	Bear River.....	Sec. 35, T. 12 S., R. 40 E., 2 miles west of Cleveland, Idaho.	10.9
1937				
Nov. 7	Devil Creek (below Evans Dividers).	Malad River.....	Sec. 35, T. 13 S., R. 36 E., 3 miles northeast of Malad, Idaho.	3.62
Dec. 16	.....do.....	.....do.....	.....do.....	†1.0
1936				
Feb. 24	.....do.....	.....do.....	.....do.....	†1.0
Oct. 25	.....do.....	.....do.....	.....do.....	1.54
Dec. 8	.....do.....	.....do.....	.....do.....	1.88
1939				
Jan. 20	.....do.....	.....do.....	.....do.....	1.75
Mar. 28	.....do.....	.....do.....	.....do.....	15.9
Apr. 20	.....do.....	.....do.....	.....do.....	8.02
May 6	.....do.....	.....do.....	.....do.....	5.85
June 4	.....do.....	.....do.....	.....do.....	2.07
July 17	.....do.....	.....do.....	.....do.....	†2.02
Aug. 31	.....do.....	.....do.....	.....do.....	1.15
1937				
Nov. 7	Spring Creek (below Evans Dividers).	Devil Creek.....	Sec. 35, T. 13 S., R. 36 E., 3 miles northeast of Malad, Idaho.	3.47
Dec. 16	.....do.....	.....do.....	.....do.....	8.05
1936				
Jan. 27	.....do.....	.....do.....	.....do.....	7.24
Feb. 24	.....do.....	.....do.....	.....do.....	8.25
Mar. 28	.....do.....	.....do.....	.....do.....	14.2
30	.....do.....	.....do.....	.....do.....	10.5
Apr. 12	.....do.....	.....do.....	.....do.....	11.2
19	.....do.....	.....do.....	.....do.....	22.5
May 1	.....do.....	.....do.....	.....do.....	16.2
18	.....do.....	.....do.....	.....do.....	11.5
June 7	.....do.....	.....do.....	.....do.....	4.57
26	.....do.....	.....do.....	.....do.....	6.80
July 23	.....do.....	.....do.....	.....do.....	3.83
Sept. 8	.....do.....	.....do.....	.....do.....	3.38
Oct. 25	.....do.....	.....do.....	.....do.....	5.05
Dec. 8	.....do.....	.....do.....	.....do.....	8.23
1939				
Jan. 20	.....do.....	.....do.....	.....do.....	7.60
Mar. 28	.....do.....	.....do.....	.....do.....	15.6
Apr. 20	.....do.....	.....do.....	.....do.....	7.20
May 6	.....do.....	.....do.....	.....do.....	7.16
June 4	.....do.....	.....do.....	.....do.....	7.89
July 17	.....do.....	.....do.....	.....do.....	4.61
Aug. 31	.....do.....	.....do.....	.....do.....	4.10

*Includes miscellaneous discharge measurements made in Bear River Basin during water year 1937-38.
 †Estimated.

Jordan River Basin

Sept. 19	Water pumped from excavation for Deer Creek Dam.	Provo River.....	SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 5 S., R. 4 E., at dam site, 14 miles northeast of Provo, Utah.	*6.68
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*Measured by 2-foot Parshall flume and apparently includes all water draining into the excavation.

Sevier Lake Basin

June 12	Mammoth Creek.....	Sevier River.....	NE $\frac{1}{4}$ sec. 6, T. 37 S., R. 5 W., at bridge on U. S. Highway 89, 2 miles southwest of Hatch, Utah.	25.4
Aug. 29	.....do.....	.....do.....	.....do.....	17.1
Dec. 10	Chalk Creek.....	Sevier Lake.....	NE $\frac{1}{4}$ sec. 35, T. 21 S., R. 4 W., $\frac{1}{4}$ mile below North Fork and 3 miles southeast of Fillmore, Utah.	9.1
Feb. 18	.....do.....	.....do.....	.....do.....	5.6
May 10	.....do.....	.....do.....	.....do.....	82.0

Salton Sea Basin

Dec. 21	Whitewater River..	Salton sink.....	Whitewater, Calif.....	*24
21	Murray Canyon Creek	Palm Canyon Creek..	At mouth, near Palm Springs, Calif....	*.50
Mar. 29	.....do.....	.....do.....	.....do.....	*.6
Apr. 12	.....do.....	.....do.....	.....do.....	*.15
Dec. 21	Andreas Canyon Creek.	.....do.....	.....do.....	*.20
Mar. 29	.....do.....	.....do.....	.....do.....	*.25
Apr. 12	.....do.....	.....do.....	.....do.....	*.20
Mar. 29	Tahquitz Creek.....	.....do.....	.....do.....	*.90

*Estimated.

MISCELLANEOUS DISCHARGE MEASUREMENTS

Miscellaneous discharge measurements in the Great Basin during the water year October 1938 to September 1939--Continued

Salton Sea Basin--Continued

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Apr. 12	Tahquitz Creek...	Palm Canyon Creek..	At mouth, near Palm Springs, Calif....	15
26	.....do.....	.....do.....	.....do.....	13.8
May 10	.....do.....	.....do.....	.....do.....	13.8
June 1	.....do.....	.....do.....	.....do.....	*1.6

*Estimated.

Antelope Valley Basin

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Dec. 22	Punch Bowl Creek.	Rock Creek.....	At mouth, near Valyermo, Calif.....	4.7
June 29	.....do.....	.....do.....	.....do.....	0
Sept. 27	.....do.....	.....do.....	.....do.....	1.4

Malheur and Harney Lakes Basin

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
May 19	Silvies River....	Malheur Lake.....	Sec. 23, T. 17 S., R. 31 E., below Seneca, Oreg.	40.8
Apr. 26	Rattlesnake Creek	.....do.....	Sec. 19, T. 22 S., R. 32½ E., below James ranch, Oregon.	4.81
May 17	Donner und Blitzen River	.....do.....	NE¼ sec. 26, T. 29 S., R. 31 E., below Grain Camp Dam, Oreg.	70.2
June 8	.....do.....	.....do.....	NE¼ sec. 22, T. 28 S., R. 31 E., below Busse Dam, Oreg.	35.8
22	.....do.....	.....do.....	.....do.....	20.3
May 16	East Fork of Kiger Creek.*	Kiger Creek.....	Sec. 4, T. 30 S., R. 33 E., at Haines ranch, Oregon.	45.8
June 22	.....do.....	.....do.....	.....do.....	26.0
May 16	Middle Fork of Kiger Creek.*	.....do.....	Sec. 4, T. 30 S., R. 33 E., at Haines ranch, Oregon.	13.1
16	West Fork of Kiger Creek.*	.....do.....	.....do.....	24.0
June 9	.....do.....	.....do.....	.....do.....	8.9
22	.....do.....	.....do.....	.....do.....	6.9
22	McCoy Creek.....	.....do.....	Sec. 12, T. 30 S., R. 32 E., at Frazier ranch, Oregon.	26.9
Mar. 9	Sodhouse Spring..	Donner und Blitzen River.	NW¼SE¼ sec. 35, T. 26 S., R. 31 E., in outlet from spring pool and 100 feet above mouth, Oregon.	9.3
Apr. 1	Silver Creek.....	Harney Lake.....	SE¼NW¼ sec. 21, T. 25 S., R. 28 E., at former gaging station at Dunn ranch, Oregon.	122

*Braided channel of Kiger Creek.

Alvord Lake Basin

Date	Stream	Tributary to or diverting from-	Locality	Discharge (sec.-ft.)
Apr. 21	South Branch of Trout Creek.	Distributary of Trout Creek.	Sec. 28, T. 39 S., R. 36 E., Oregon...	4.6

The following tables summarize in convenient form for general reference and for use in preliminary investigations the figures of yearly discharge and run-off for certain gaging stations in the Great Salt Lake Basin, previously published in the annual series of water-supply papers. All gaging stations, both active and discontinued, at which 10 or more complete years of record have been collected and published are represented, also some special stations, as noted below. The summaries present figures of maximum and minimum daily discharge and yearly mean discharge and run-off, for both the water years ending September 30 and the calendar years. The figures for the water years prior to 1912 and figures for the calendar years 1912 to 1933 have not been previously published in the annual water-supply papers but are included in these summaries.

The number of the water-supply paper in which the figures of daily and monthly discharge as well as yearly discharge are published is shown in the column headed W.S.P. (no. and page). The descriptions contained in the water-supply papers indicated five detailed information relative to the gaging stations, including location, diversions, regulation by storage, effect of irrigation, and other pertinent information. Records for stations which were operated prior to 1901 are generally contained in the annual reports of the Geological Survey. Reference is made to these reports if records have not also been published in water-supply papers.

Records for most gaging stations contained in these summaries were collected by the Geological Survey in cooperation with States, municipalities, or other Federal agencies. Acknowledgment of such cooperation is made in the introduction to each of the annual surface water-supply papers. Records for some stations are furnished by other organizations in complete form for publication. Acknowledgment of these records is made in the descriptive text that is published with the records.

Figures of drainage area are given for each station when known.

Summaries for incomplete years are given for those stations in irrigated regions for which seasonal records were collected in order to show the flow available for irrigation. They have been compiled from the records of daily and monthly discharge contained in the water-supply paper indicated. For summaries after 1911 if the period extends beyond September 30, records of daily and monthly discharge after that day are contained in the water-supply paper indicated for the following year. An incomplete year is included for other stations if the maximum daily discharge or minimum daily discharge for all the years of record occurred in that year.

Former names under which records for some of the stations have been published in the annual water-supply papers are indicated in these yearly summaries as follows:

1. If the name of the stream or town or other feature to which the station is referred has been changed, the former name is given in parentheses, indicating that records for some of the earlier years are published under the obsolete name.
2. If the entire name of a station has been changed, the superseded name and years when it was used are given in parentheses beneath the present name.

GREAT SALT LAKE

Plate 2 illustrates the fluctuations of the level of Great Salt Lake for the period 1851 to January 1941. The elevations are referred to mean sea level as the datum. The sources of the data and elevation above mean sea level of zero of each of the gages are shown on the plate. The information contained on this plate is a reproduction of that given on plate 2, Water-Supply Paper 517, page 16, with the data for the years 1923 to 1940 added.

The fluctuations of the lake level result from a balance of the factors, inflow, precipitation on the lake surface, and evaporation. Inflow is in turn dependent upon the precipitation over the areas draining into the lake and upon the demands of irrigation on those areas, which have been variable and increasing in amount since the turn of the century.

Monograph 1 of the Geological Survey, entitled "Lake Bonneville," by Grove Karl Gilbert, contains detailed information relative to the present lake and its prehistoric ancestors. The annual surface water-supply papers that present records for the Great Basin contain descriptions of the gages and twice-monthly readings of lake stage (see p. 12 of this report).

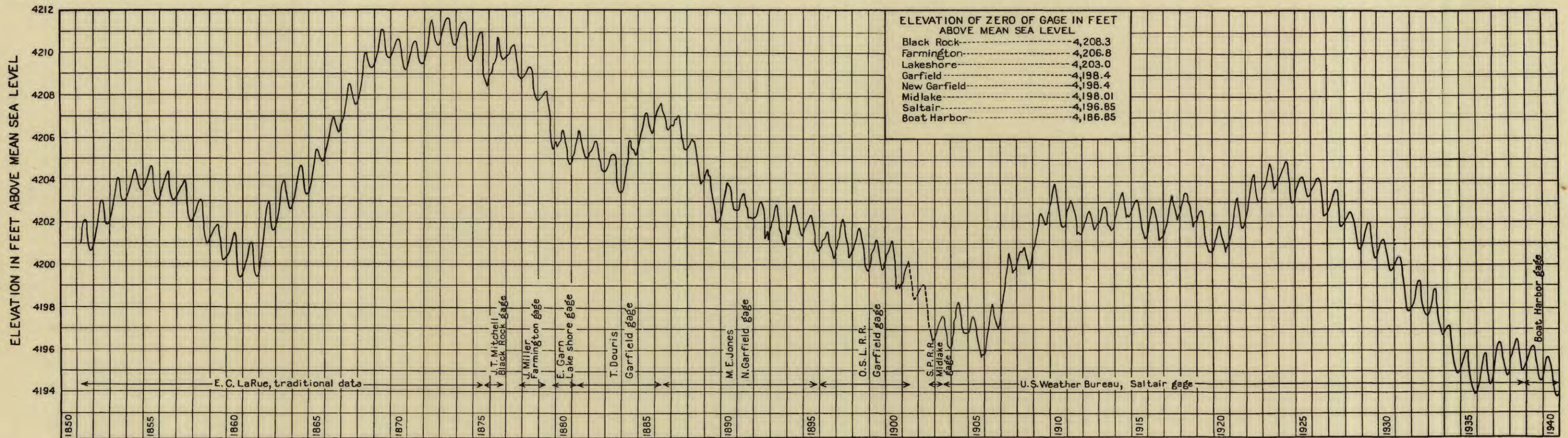


DIAGRAM SHOWING FLUCTUATIONS OF GREAT SALT LAKE, 1851-1940.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
BEAR RIVER BASIN

Bear River near Evanston, Wyo.
(Drainage area, 645 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
*1914	390-19	2,390	27	362	262,000	2,390	27	356	258,000
*1915	410-18	1,240	18	209	151,000	1,240	18	206	149,000
*1916	440-20	1,600	8	299	217,000	1,600	8	300	218,000
*1917	460-17	2,500	-	395	286,000	2,500	-	395	286,000
*1918	480-9	1,940	2	227	164,000	1,940	2	225	163,000
*1919	510-10	1,380	.1	163	118,000	1,380	.1	166	120,000
*1920	510-10	2,520	-	353	242,000	2,520	-	359	246,000
*1921	530-12	3,390	-	409	296,000	3,390	-	399	289,000
*1922	550-12	2,370	-	352	255,000	2,370	-	355	257,000
*1923	570-8	3,460	-	390	282,000	3,460	-	403	292,000
*1924	590-11	1,900	0	225	163,000	1,900	0	204	148,000
*1925	610-12	1,150	6	181	131,000	1,150	-	193	140,000
*1926	630-13	1,610	6	221	160,000	1,610	6	207	150,000
*1927	650-11	1,730	-	214	155,000	1,730	-	232	168,000
*1928	670-11	2,440	2.0	278	202,000	2,440	2.0	262	190,000
*1929	690-12	1,940	3.8	269	195,000	1,940	-	280	203,000
*1930	705-12	1,200	3	193	140,000	1,200	3	186	136,000
1931	720-12	707	0	105	76,300	707	0	98.9	71,600
1932	735-12	1,920	2	228	166,000	1,920	2	230	167,000
1933	750-12	1,500	0	155	112,000	1,500	0	151	109,000
1934	765-12	444	0	50.8	36,780	444	0	48.7	35,260
1935	790-14	2,000	2.2	148	107,400	2,000	2.2	149	108,000
1936	810-10	2,050	2.7	240	174,300	2,050	18	250	181,600
1937	830-10	2,400	.3	209	151,600	2,400	.3	203	147,300
1938	860-12	1,690	5.4	221	160,000	1,690	5.4	227	164,400
1939	880-13	964	0	146	105,700	-	-	-	-

*Winter records estimated to complete the year.

Bear River at Harer, Idaho
(Drainage area, 2,780 square miles)

1914	390-20	3,440	-	896	648,000	3,440	-	890	644,000
1915	410-18	1,080	133	365	265,000	1,080	133	347	251,000
1916	440-20	3,610	-	704	511,000	-	-	-	-
1919	510-11	-	-	-	-	1,240	81	311	225,000
1920	510-11	3,860	-	709	514,000	3,860	-	740	537,000
1921	530-13	3,640	-	1,020	724,000	3,640	-	1,000	724,000
1922	550-13	3,840	-	901	652,000	3,840	-	897	650,000
1923	570-9	3,700	-	932	674,000	3,700	-	979	709,000
1924	590-12	3,770	135	642	466,000	3,770	-	562	407,000
1925	610-13	1,450	-	470	340,000	1,450	-	492	356,000
1926	630-13	1,520	114	375	272,000	1,520	114	347	261,000
1927	650-12	1,790	140	480	348,000	1,790	140	514	373,000
1928	670-12	2,720	168	585	425,000	2,720	-	556	404,000
1929	690-13	2,260	-	546	395,000	2,260	174	577	417,000
1930	705-13	1,200	140	430	312,000	1,200	140	412	298,000
1931	720-13	440	60	184	134,000	440	60	150	109,000
1932	735-13	2,280	91	438	318,000	2,280	80	456	331,000
1933	750-13	1,330	80	304	220,000	1,330	-	298	216,000
1934	765-13	210	26	108	77,950	210	26	92.4	66,860
1935	790-15	1,510	48	217	167,000	1,510	75	229	272,300
1936	810-11	3,040	100	560	406,800	3,040	100	579	420,300
1937	830-11	2,190	124	462	334,400	2,190	124	457	330,800
1938	860-14	2,080	131	526	380,700	2,080	166	542	392,400
1939	880-15	2,360	87	373	270,300	-	-	-	-

Bear River at Alexander, Idaho
(Drainage area, 3,840 square miles)

1912	330-22	3,900	-	1,150	837,000	3,900	-	1,240	897,000
1913	360-26	-	-	1,100	800,000	-	-	1,080	778,000
1914	390-24	3,940	-	1,410	1,020,000	3,940	-	1,450	1,050,000
1915	410-21	-	415	790	572,000	-	-	693	502,000
1916	440-22	1,940	-	538	607,000	-	-	-	-
1920	510-14	1,480	-	923	670,000	1,480	-	922	669,000
1922	550-14	4,520	-	1,510	1,090,000	4,520	-	1,520	1,100,000
1923	570-10	3,910	671	1,490	1,080,000	3,910	790	1,520	1,100,000
1924	590-13	2,190	656	1,170	847,000	2,190	515	1,100	798,000
1925	610-14	1,280	368	880	637,000	1,280	340	851	615,000
1926	630-14	1,330	340	896	649,000	1,330	410	833	676,000
1927	650-13	1,540	358	892	646,000	1,540	166	775	561,000
1928	670-13	1,660	36	656	475,000	1,660	36	709	514,000
1929	690-14	1,200	222	697	504,000	1,200	219	661	479,000
1930	705-14	1,280	219	626	453,000	1,280	251	605	438,000
1931	720-14	1,370	152	545	394,000	1,370	58	484	350,000
1932	735-14	1,060	35	396	287,000	1,060	35	401	291,000
1933	750-14	1,140	77	448	324,000	1,140	77	454	328,000
1934	765-14	1,220	70	471	340,900	1,220	54	456	330,400
1935	790-16	1,150	44	378	273,700	1,150	44	376	272,300
1936	810-12	2,450	44	429	311,400	2,450	50	460	333,600
1937	830-12	1,070	54	430	311,000	1,070	54	419	303,200
1938	860-15	1,040	46	454	328,800	1,040	46	512	370,900
1939	880-16	1,240	44	537	388,400	-	-	-	-

YEARLY DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Bear River Basin--Continued

Bear River near Preston, Idaho
(Drainage area, 4,500 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1890	(a)	-	-	-	-	5,980	270	1,750	1,270,000
1891	(a)	3,030	690	1,170	851,000	3,030	690	1,220	888,000
1892	(a)	5,260	780	1,590	1,150,000	5,260	600	1,440	1,120,000
1893	(a)	3,960	600	1,430	1,030,000	3,960	690	1,450	1,060,000
1894	(b)	7,980	690	2,200	1,690,000	7,980	980	2,260	1,630,000
1895	(c)	3,640	612	1,320	966,000	3,640	612	1,210	875,000
1896	(d)	5,200	580	1,320	966,000	5,200	580	1,400	1,020,000
1897	(e)	-	-	1,680	1,220,000	-	-	1,710	1,240,000
1898	(f)	3,480	535	1,260	930,000	3,480	535	1,170	849,000
1900	(g)	2,540	455	1,150	836,000	2,540	455	1,010	732,000
1901	75-191	2,920	400	955	692,000	2,920	400	931	675,000
1902	85-82	2,340	302	754	545,000	2,340	302	732	529,000
1904	133-241	-	-	-	-	5,050	483	1,480	1,070,000
1905	250-33	1,320	158	611	442,000	1,320	158	555	401,000
1906	250-33	4,650	323	1,190	858,000	4,650	342	1,250	905,000
1907	250-33	8,500	635	2,230	1,650,000	8,500	540	2,330	1,890,000
1908	250-33	2,210	385	981	712,000	2,210	385	943	824,000
1909	270-36	6,090	600	2,000	1,450,000	6,090	720	2,180	1,580,000
1910	290-33	-	-	1,380	1,000,000	-	-	1,190	859,000
1911	310-23	5,890	395	1,280	926,000	5,890	395	1,510	947,000
1912	330-24	4,730	583	1,390	1,010,000	4,730	590	1,450	1,050,000
1913	360-29	5,600	-	1,240	896,000	5,600	-	1,220	882,000
1914	390-26	4,920	-	1,700	1,230,000	4,920	-	1,740	1,280,000
1915	410-23	2,260	249	888	642,000	2,260	249	767	554,000
1916	440-24	2,770	296	977	709,000	2,770	229	1,060	766,000

a 14th Ann. Rept., pt. 2, p. 118.

b Not previously published.

c Bull. 140, p. 225.

d 18th Ann. Rept., pt. 4, p. 313

e 19th Ann. Rept., pt. 4, p. 431.

f 20th Ann. Rept., pt. 4, p. 459.

g 22d Ann. Rept., pt. 4, p. 407.

Bear River near Weston, Idaho

1920	510-17	-	-	-	-	-	-	1,140	831,000
1921	530-17	-	-	1,410	1,020,000	-	-	1,470	1,060,000
1922	550-17	5,850	433	1,830	1,330,000	5,850	550	1,840	1,300,000
1923	570-12	4,260	562	1,770	1,260,000	4,260	625	1,830	1,330,000
1924	590-15	3,210	400	1,370	997,000	3,210	160	1,280	936,000
1925	610-16	2,420	180	762,000	2,420	100	1,030	744,000	
1926	630-16	1,810	100	1,020	737,000	1,810	360	1,030	746,000
1927	650-14	1,730	210	1,020	738,000	1,730	210	932	675,000
1928	670-14	2,500	173	856	622,000	2,500	173	923	670,000
1929	690-15	2,680	297	904	655,000	2,680	-	857	620,000
1930	705-15	1,520	80	766	554,000	1,520	-	736	532,000
1931	720-15	1,400	-	661	478,000	1,400	-	583	422,000
1932	735-15	2,060	-	566	412,000	-	-	-	-
1935	790-17	1,230	31	425	308,000	1,230	31	428	309,900
1936	810-13	2,990	128	588	427,100	2,990	128	646	469,080
1937	830-13	1,590	30	613	443,700	1,590	30	606	438,600
1938	860-16	1,850	42	608	439,900	1,850	-	648	469,200
1939	880-17	1,950	100	629	455,600	-	-	-	-

Bear River near Collinston, Utah
(Drainage area, 6,000 square miles)

1890	(a)	8,220	610	2,840	2,070,000	8,220	1,000	2,940	2,140,000
1891	(a)	5,000	825	1,890	1,370,000	5,000	825	1,850	1,340,000
1892	(a)	6,260	1,000	2,190	1,630,000	6,260	1,000	2,100	1,520,000
1893	(a)	6,470	875	1,970	1,420,000	6,470	875	1,940	1,400,000
1894	(b)	7,770	825	2,890	1,950,000	7,770	1,020	2,810	2,040,000
1895	(c)	4,990	540	1,900	1,370,000	4,990	540	1,840	1,330,000
1896	(d)	7,420	1,100	2,150	1,550,000	7,420	1,100	2,190	1,570,000
1897	(e)	10,600	990	2,830	2,050,000	10,590	990	2,860	2,080,000
1898	(f)	5,320	718	2,100	1,520,000	5,320	718	1,970	1,430,000
1899	(g)	6,640	848	2,630	1,910,000	6,640	870	2,840	2,060,000
1900	(h)	4,650	415	1,860	1,350,000	4,650	415	1,700	1,240,000
1901	75-193	4,950	415	1,640	1,180,000	4,950	415	1,590	1,150,000
1902	290-35	3,340	230	1,220	885,000	3,340	230	1,040	752,000
1903	100-131	3,850	31	1,090	784,000	3,850	31	1,240	892,000
1904	133-243	6,700	270	2,200	1,590,000	6,700	270	2,200	1,600,000
1905	176-25	2,760	10	1,010	729,000	2,760	10	971	702,000
*1907	250-37	-	-	-	-	10,200	810	3,700	2,680,000
1908	250-37	5,470	385	1,940	1,410,000	5,470	385	1,840	1,300,000
1909	270-38	11,600	500	3,420	2,490,000	11,600	500	3,630	2,630,000
1910	290-35	7,900	30	2,390	1,720,000	7,800	20	2,090	1,520,000
1911	310-26	3,800	275	1,950	1,410,000	3,800	275	1,860	1,430,000
1912	330-27	6,360	905	2,240	1,630,000	6,360	-	2,330	1,690,000
1913	360-30	6,250	228	1,860	1,340,000	6,250	228	1,790	1,300,000
1914	390-28	6,580	437	2,460	1,780,000	6,580	437	2,510	1,820,000
1915	410-25	2,610	71	1,210	877,000	2,610	71	1,060	769,000
1916	440-26	6,340	286	1,700	1,240,000	6,340	286	1,820	1,300,000
1917	460-20	8,070	898	2,740	1,990,000	8,070	950	2,860	2,070,000
1918	480-9	4,470	223	1,670	1,210,000	4,470	225	1,600	1,160,000

*Water year incomplete.

a 14th Ann. Rept., pt. 2, p. 120.

b Not previously published.

c Bull. 140, p. 227.

d 18th Ann. Rept., pt. 4, p. 319.

e 19th Ann. Rept., pt. 4, p. 434.

f 20th Ann. Rept., pt. 4, p. 460.

g 21st Ann. Rept., pt. 4, p. 394.

h 22d Ann. Rept., pt. 4, p. 410.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Bear River Basin--Continued

Bear River near Collinston, Utah--Continued
(Drainage area, 6,000 square miles)

Year	W.S.F. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1919	510-19	3,760	62	1,360	984,000	3,760	62	1,300	944,000
1920	510-19	6,410	30	1,750	1,270,000	6,410	30	1,800	1,310,000
1921	530-20	6,720	318	2,420	1,750,000	6,720	318	2,460	1,780,000
1922	550-19	10,100	351	2,790	2,020,000	10,100	351	2,800	2,020,000
1923	570-14	6,020	516	2,510	1,820,000	6,020	516	2,570	1,860,000
1924	590-17	4,760	73	1,660	1,200,000	4,760	73	1,490	1,080,000
1925	610-18	3,920	60	1,490	1,080,000	3,920	60	1,490	1,080,000
1926	630-17	3,230	40	1,210	874,000	3,230	40	1,220	882,000
1927	650-15	4,310	18	1,490	1,080,000	4,310	18	1,440	1,040,000
1928	670-15	4,210	19	1,210	878,000	4,210	19	1,220	886,000
1929	690-16	4,000	29	1,280	923,000	4,000	29	1,250	902,000
1930	705-16	3,100	23	945	684,000	3,100	23	911	659,000
1931	720-16	1,720	25	627	454,000	1,720	25	498	360,000
1932	735-16	4,550	23	1,070	780,000	4,550	23	1,120	817,000
1933	750-16	3,410	28	863	625,000	3,410	28	858	622,000
1934	765-16	1,640	17	442	319,800	1,650	17	415	300,400
1935	790-18	2,920	16	623	451,300	2,920	16	618	446,000
1936	810-14	7,240	18	1,139	826,600	7,240	18	1,237	897,800
1937	830-14	4,670	14	1,054	762,800	4,670	14	1,058	765,900
1938	860-17	4,800	16	1,115	807,000	4,800	16	1,180	854,700
1939	880-18	3,680	18	911	659,900	-	-	-	-

Soda Creek near Soda Springs, Idaho

*1913	360-39	324	-	-	-	324	-	-	-
1914	390-31	241	48	79.9	57,800	241	48	79.0	57,200
1915	410-27	108	45	59.3	42,900	108	44	55.0	38,400
1916	440-28	96	38	49.2	35,700	96	38	49.6	36,500
1917	460-21	193	44	62.6	40,900	193	45	59.0	42,700
1918	480-11	150	49	58.8	42,600	150	48	59.1	42,800
1919	510-22	231	38	58.6	42,400	231	38	58.6	42,400
1920	510-22	179	46	64.0	46,400	179	46	64.3	46,600
1921	530-22	159	45	66.5	48,200	159	45	68.9	49,900
1922	550-20	229	55	73.0	52,900	229	53	71.8	52,000
1923	570-17	217	55	65.3	49,400	217	42	66.0	47,800
1924	590-20	241	40	58.7	42,600	241	40	57.4	41,700
1925	610-21	155	45	54.1	39,200	155	45	54.4	39,400
1926	630-21	140	43	52.7	39,200	-	-	-	-
1928	670-16	May 16 to Sept. 30.....				75.2	41.0	49.5	13,600
1929	690-17	May 9 to Sept. 30.....				86.4	45.2	66.5	19,100

*Year incomplete.

Logan River above State dam, near Logan, Utah
(Drainage area, 218 square miles)

1914	390-33	1,200	13	166	120,000	1,200	13	168	122,000
1915	410-28	365	13	95.6	69,300	365	13	95.1	67,500
1916	440-23	847	8	197.6	143,000	847	20	204	148,000
1917	460-23	1,040	24	195	141,000	1,040	32	196	142,000
1918	480-13	741	28	144	104,000	741	28	142	103,000
1919	510-24	641	28	117	84,900	641	27	117	84,900
1920	510-24	1,150	27	202	146,000	1,150	38	208	151,000
1921	530-23	1,320	47	276	200,000	1,320	52	283	205,000
1922	550-22	1,220	78	268	194,000	1,220	84	278	202,000
1923	570-19	1,120	11	191	138,000	1,120	11	182	118,000
1924	590-22	594	9	69.9	50,200	594	9	69.2	50,400
1925	610-23	715	10	83.8	60,700	715	10	83.9	60,700
1926	630-22	350	12	39.5	28,600	350	12	38.6	28,000
1927	650-17	858	14	106	77,000	858	14	106	76,800
1928	670-18	831	14	105	75,900	831	14	105	76,000
1929	690-19	721	13	90.5	65,500	721	13	91.2	65,900
1930	705-18	349	14	44.4	32,200	349	14	44.3	32,100
1931	720-17	69	9	15.5	11,200	69	8	15.4	9,690
1932	735-17	1,110	8	141	102,000	1,110	10	142	103,000
1933	750-17	790	11	74.7	54,100	790	9	74.4	53,900
1934	765-17	175	8	12.8	9,280	175	8	12.1	8,760
1935	790-19	555	8	59.7	43,200	555	8	60	43,460
1936	810-15	1,240	8	173	125,400	1,240	8	173	125,700
1937	830-15	650	8	67.8	49,110	650	8	68.2	49,380
1938	860-18	815	8	108	78,070	815	8	108	78,310
1939	880-23	320	10	42.7	30,890	-	-	-	-

Logan River near Logan, Utah
(Drainage area, 218 square miles)

1897	(a)	-	-	398	289,000	-	-	400	291,000
1898	(b)	778	108	286	207,000	778	108	288	194,000
1899	(c)	1,930	108	471	341,000	1,930	200	509	369,000
1900	(d)	1,010	*110	329	239,000	1,010	*110	297	215,000
1905	176-28	615	96	213	154,010	615	96	202	147,000
1906	250-40	1,200	62	278	218,000	1,200	62	276	219,000
1907	250-40	2,450	74	483	353,000	2,450	74	505	366,000

. Figure previously published in error.

* a 19th Ann. Rept., pt. 4, p. 434.

b 20th Ann. Rept., pt. 4, p. 462.

c 21st Ann. Rept., pt. 4, p. 434.

d 22d Ann. Rept., pt. 4, p. 408.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Bear River Basin--Continued

Logan River near Logan, Utah--Continued
(Drainage area, 218 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1906	250-40	972	100	246	178,000	972	55	221	160,000
1909	270-40	1,680	55	414	323,000	1,680	55	427	336,000
1910	290-38	1,480	76	362	260,000	1,460	76	353	256,000
1911	310-28	1,500	94	358	260,000	1,500	94	355	267,000
1912	330-34	2,040	91	377	273,000	2,040	-	381	275,000

Utah Power & Light Co.'s tailrace near Logan, Utah

1914	390-36	154	81	120	86,600	154	60	127	87,300
1916	410-33	139	8	66.0	47,100	139	8	53.5	40,900
1916	440-33	99	12	72.5	52,700	104	12	73.4	54,800
1917	460-27	118	32	89.2	64,600	-	0	93.6	67,800
1918	460-18	-	0	92.5	66,900	-	0	83.9	62,800
1919	510-27	120	0	65.3	47,300	84	0	59.3	43,000
1920	510-27	87	3	64.3	46,700	88	3	67.7	49,200
1921	550-25	88	0	70.2	50,800	88	0	67.5	48,900
1922	550-24	80	0	28.2	20,400	65	0	10.1	7,320
1923	570-21	165	0	98.8	71,500	166	20	135	97,800
1924	590-24	179	20	133	96,500	179	50	127	86,900
1925	610-25	181	50	121	87,400	181	71	124	89,900
1926	630-24	194	77	122	88,300	194	77	115	85,000
1927	650-18	132	0	119	86,000	132	0	130	94,000
1928	670-19	182	71	136	97,600	183	71	132	95,500
1929	690-20	183	2	128	92,900	183	2	129	93,100
1930	705-19	181	81	126	91,600	181	38	127	86,800
1931	720-18	185	38	92.9	67,300	185	46	85	61,600
1932	735-18	189	46	118	86,000	189	46	135	98,300
1933	750-18	187	65	131	94,900	187	65	124	89,700
1934	765-18	186	0	93.3	67,650	186	0	83.4	60,390
1935	790-20	192	38	109	78,830	192	38	115	83,450
1936	810-16	180	46	115.6	93,540	180	48	126	90,420
1937	830-17	178	58	130	93,970	178	58	128	91,060
1938	860-19	174	1	125	90,680	174	1	126	90,880
1939	880-24	174	70	120	86,640	-	-	-	-

Logan, Hyde Park, and Smithfield canal near Logan, Utah

1906	250-45	-	-	-	-	99	0	26.4	19,200
1924	590-25	-	0	33.3	24,200	-	0	33.2	24,100
1925	610-26	120	0	32.3	23,400	120	0	30.1	21,800
1926	630-26	119	-	26.2	19,000	119	-	26.8	19,400
1927	650-19	123	1	33.2	24,000	123	1	35.5	26,700
1928	670-20	126	-	29.7	20,700	126	-	34.7	26,300
1929	690-21	130	-	33.2	24,000	130	-	32.7	23,600
1930	705-20	136	0	29.9	21,700	136	0	29.6	21,400
1931	720-19	113	-	19.7	14,300	113	-	20.5	14,900
1932	735-19	131	-	36.7	26,700	131	-	37.4	27,100
1933	750-19	134	0	30.2	21,900	134	0	30.4	22,000
1934	765-19	103	0	19.6	14,160	103	0	18.2	13,160
1935	790-21	135	0	26.8	19,410	135	0	27.2	19,720
1936	810-17	130	0	35.6	26,830	130	0	36.4	26,410
1937	830-17	126	0	30.8	22,180	126	0	30.0	21,720
1938	860-20	126	1	30.1	21,770	125	1	30.4	22,000
1939	880-25	119	0	27.2	19,710	-	-	-	-

Blacksmith Fork above Utah Power & Light Co.'s dam near Hyrum, Utah
(Drainage area, 260 square miles)

1914	390-41	-	-	-	-	610	74	167	121,000
1915	410-38	122	68	93.9	68,000	114	-	86.7	62,800
1916	440-39	900	-	165	119,000	900	-	170	124,000
1917	460-30	1,300	71	205	149,000	1,300	71	212	153,000
1918	460-18	-	87	145	105,000	-	78	137	98,900
1919	510-32	252	66	102	74,000	252	39	97.4	70,400
1920	510-32	777	39	181	110,000	777	65	160	116,000
1921	530-28	376	75	154	104,000	376	82	138	108,000
1922	550-27	336	88	195	141,000	336	83	182	139,000
1923	570-24	998	79	190	138,000	998	79	191	138,000
1924	590-27	415	81	128	93,100	415	0	119	86,400
1925	610-27	333	66	120	87,200	333	66	120	86,900
1926	630-27	210	66	92.7	67,100	210	-	89.5	64,800
1927	650-20	620	-	122	88,100	620	-	126	91,200
1928	670-21	629	-	125	91,000	629	-	124	90,300
1929	690-22	415	-	122	86,500	415	-	123	88,800
1930	705-22	305	-	92.0	66,600	305	-	87.0	65,000
1931	720-21	92	46	59.7	43,200	92	-	56.5	40,200
1932	735-21	745	-	141	103,000	745	-	149	108,000
1933	760-21	330	-	103	74,700	330	-	100	72,600
1934	765-21	82	42	58.2	42,160	82	36	51.7	37,470
1935	790-23	264	29	72.2	52,300	264	29	74.5	53,920
1936	810-18	1,120	41	152	110,200	1,120	41	159	115,800
1937	830-18	654	55	120	86,980	654	55	119	86,110
1938	850-21	610	67	122	88,280	610	67	123	89,090
1939	880-26	271	56	87.1	63,080	-	-	-	-

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Bear River Basin--Continued

West Side canal near Collinston, Utah

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1913	360-33	555	0	182	131,000	555	0	184	134,000
1914	390-46	528	1.5	182	132,000	-	-	-	-
1916	440-46	532	0	190	138,000	532	0	196	142,000
1917	460-35	554	0	173	126,000	554	0	183	133,000
1918	480-19	559	0	230	166,000	559	0	233	168,000
1919	510-35	557	0	245	177,000	557	0	235	170,000
1920	510-35	609	0	215	156,000	609	0	211	153,000
1921	530-30	602	0	213	152,000	602	0	230	166,000
1922	550-29	604	0	239	175,000	604	0	235	170,000
1923	570-26	616	0	235	170,000	616	0	219	159,000
1924	590-29	628	0	265	192,000	628	0	277	201,000
1925	610-29	590	0	207	150,000	590	0	216	156,000
1926	630-28	604	0	250	181,000	604	0	235	170,000
1927	650-21	635	0	245	177,000	635	0	242	175,000
1928	670,22	640	0	251	182,000	640	0	258	187,000
1929	690-23	607	0	226	164,000	607	0	226	164,000
1930	705-25	673	0	247	178,000	673	0	238	172,000
1931	720-22	634	0	244	177,000	634	0	249	180,000
1932	735-22	659	0	254	170,000	659	0	244	177,000
1933	750-22	677	0	249	180,000	677	0	250	181,000
1934	765-22	552	0	228	165,100	552	0	203	146,900
1935	790-24	658	0	196	141,400	658	0	204	147,400
1936	810-19	646	0	228	165,500	646	0	233	169,500
1937	830-19	653	0	228	165,000	653	0	226	163,600
1938	860-22	690	0	237	171,600	690	0	237	171,800
1939	880-27	664	0	246	178,400	-	-	-	-

Hammond (East Side) canal near Collinston, Utah

1918	480-21	120	0	38.3	27,700	120	0	39.1	28,300
1919	510-38	137	0	40.7	28,300	137	0	40.6	29,400
1920	510-38	142	0	40.7	29,500	142	0	40.2	29,100
1921	550-31	154	0	41.0	29,700	154	0	43.2	31,300
1922	550-30	164	0	47.7	34,500	164	0	50.6	36,600
1923	570-27	142	0	47.6	34,400	142	0	43.2	31,300
1924	590-30	161	0	58.0	42,100	161	0	59.6	43,200
1925	610-30	147	0	45.3	32,600	147	0	50.0	32,600
1926	630-30	147	0	54.1	39,200	147	0	54.0	39,200
1927	650-22	165	0	55.8	40,400	165	0	57.7	41,600
1928	670-23	168	0	64.4	45,600	168	0	64.2	46,600
1929	690-24	165	0	55.2	39,900	165	0	54.3	39,300
1930	705-24	168	0	57.5	41,600	168	0	58.1	40,600
1931	720-23	167	0	63.4	45,900	167	0	65.6	47,400
1932	735-23	182	0	58.4	42,400	182	0	61.6	44,700
1933	750-23	182	0	64.3	46,500	182	0	65.4	47,300
1934	765-23	160	0	50.3	36,440	160	0	44.4	32,160
1935	790-25	156	0	44.7	32,370	156	0	45.7	33,100
1936	810-20	153	0	52.3	37,970	153	0	51.0	37,040
1937	830-20	154	0	48.1	34,540	154	0	48.6	35,170
1938	860-23	148	0	50.4	36,450	148	0	50.7	36,680
1939	880-28	150	0	54.4	39,430	-	-	-	-

WEBER RIVER BASIN

Weber River near Oakley, Utah
(Drainage area, 163 square miles)

1907	250-53	-	-	-	-	4,010	-	436	317,000
1908	250-53	2,490	-	230	166,000	2,490	-	234	170,000
1909	270-49	4,010	-	406	294,000	4,010	-	409	296,000
1910	290-49	1,790	-	252	183,000	1,790	50	244	176,000
1911	310-34	2,220	-	284	191,000	2,220	-	265	192,000
1912	330-42	3,850	-	292	211,000	3,850	-	299	217,000
1913	360-53	1,690	-	232	168,000	1,690	-	247	168,000
1914	390-49	2,310	70	333	241,000	2,310	-	329	238,000
1915	410-47	1,230	-	194	141,000	1,230	62	193	139,000
1916	440-49	1,940	-	276	201,000	1,940	-	280	204,000
1917	460-38	2,760	-	325	236,000	2,760	-	317	230,000
1918	480-24	2,110	-	207	150,000	2,110	-	208	151,000
1919	510-43	1,580	-	167	121,000	2,110	-	167	121,000
1920	510-43	2,540	-	272	197,000	2,540	-	277	201,000
1921	530-35	3,450	-	361	261,000	3,450	-	360	260,000
1922	550-32	2,540	-	306	221,000	2,540	-	302	218,000
1923	570-28	2,060	-	279	202,000	2,060	-	282	204,000
1924	590-32	1,290	51	162	110,000	1,290	-	146	106,000
1925	610-32	1,290	-	193	139,000	1,290	-	199	144,000
1926	630-31	1,610	-	184	133,000	1,610	-	177	128,000
1927	650-23	1,790	50	230	166,000	1,790	-	237	172,000
1928	670-24	1,970	-	232	168,000	1,970	-	227	164,000
1929	690-25	1,710	-	249	180,000	1,710	-	250	181,000
1930	705-25	1,510	-	158	134,000	1,510	-	156	135,000
1931	720-24	990	29	108	78,100	990	29	102	73,400
1932	735-31	2,200	34	252	183,000	2,200	-	253	184,000
1933	750-26	2,200	-	190	138,000	2,200	-	188	136,000
1934	790-28	516	27	77.4	56,050	516	27	76.8	55,600
1935	790-28	2,680	30	197	142,900	2,680	-	200	144,600
1936	810-23	1,730	47	247	179,100	1,730	-	260	181,400
1937	830-23	1,530	-	177	128,500	1,530	-	179	129,500
1938	860-25	1,730	-	214	165,100	1,730	-	216	166,500
1939	880-34	779	47	161	109,200	-	-	-	-

Summary of yearly discharge, in second-feet, at stations in Weber River Basin--Continued

Weber River near Coalville, Utah
(Drainage area, 438 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	670-25	1,650	32	277	201,000	1,650	32	260	189,000
1929	690-26	1,960	51	306	222,000	1,960	-	310	224,000
1930	705-26	1,170	25	200	144,000	1,170	25	200	144,000
1931	720-25	518	14	102	74,000	518	14	85.5	61,800
1932	735-32	1,680	27	253	184,000	1,680	33	282	190,000
1933	750-27	1,470	29	178	129,000	1,470	29	175	126,000
1934	765-27	436	7	77.0	53,740	436	7	70.3	50,680
1935	790-30	1,670	9	185	134,000	1,670	24	188	156,100
1936	810-24	1,700	24	279	202,300	1,700	-	281	211,200
1937	830-24	1,370	31	231	167,500	1,370	31	223	168,900
1938	860-26	1,540	49	273	197,600	1,540	50	275	199,400
1939	880-35	696	14	163	118,300	-	-	-	-

Summary of yearly contents, in acre-feet, for Echo Reservoir at Echo, Utah

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year		
		Maximum day	Minimum day	Contents on Sept. 30	Maximum day	Minimum day	Contents on Dec. 31
*1930	-	-	-	-	-	-	-
1931	720-26	19,290	0	0	19,200	0	663
1932	735-33	62,900	0	17,100	62,900	641	18,000
1933	750-28	72,400	12,000	12,000	72,400	11,200	14,970
1934	765-28	37,930	0	0	37,930	0	6,520
1935	790-31	73,730	0	6,590	73,730	860	11,600
1936	810-25	73,730	860	34,240	73,730	288	31,500
1937	830-25	73,940	31,300	31,560	73,940	28,720	31,120
1938	860-27	73,730	19,940	19,940	73,730	16,660	18,320
1939	880-36	73,430	2,180	-	-	-	-

*About 10,000 acre-feet was impounded in 1930 before dam was completed.

Summary of yearly discharge, in second-feet, for Weber River at Echo, Utah
(Drainage area, 732 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	670-26	2,090	47	363	264,000	2,090	47	345	252,000
1929	690-27	2,210	68	404	292,000	2,210	-	406	294,000
1930	705-27	1,080	49	255	185,000	1,080	49	248	178,000
1931	720-27	427	4	132	95,500	427	4	116	84,400
1932	735-34	1,650	4	300	218,000	1,650	4	313	227,000
1933	750-29	1,450	6	226	164,000	1,450	6	219	158,000
1934	765-29	387	4	108	*77,900	387	4	93.4	67,590
1935	790-32	1,950	4	214	155,000	1,950	4	235	170,400
1936	810-26	1,620	3	307	223,200	1,620	3	317	229,900
1937	830-26	1,940	6	291	210,700	1,840	6	282	211,300
1938	860-28	2,020	5	361	276,200	2,020	5	365	278,700
1939	880-37	676	5	234	169,500	-	-	-	-

*Erroneous figures published in Water-Supply Paper 765. Corrected run-off for October 1933, 4,400 acre-feet.

Weber River at Devils Slide (Croydon), Utah
(Drainage area, 1,090 square miles)

1906	212-34	3,150	73	529	383,000	3,130	99	550	399,000
1907	250-56	4,620	166	945	685,000	4,620	166	955	693,000
1908	250-56	2,210	175	426	309,000	2,110	175	432	314,000
1909	270-51	5,120	217	1,030	744,000	5,130	217	1,050	758,000
1910	290-52	2,560	106	425	425,000	2,550	106	430	398,000
1911	310-36	2,270	80	443	321,000	2,270	80	436	316,000
1912	330-44	3,910	-	510	370,000	3,910	-	529	385,000
1913	360-55	2,460	105	417	302,000	2,460	105	421	305,000
1914	390-51	3,420	88	640	463,000	3,420	88	630	456,000
1915	410-49	1,430	48	302	219,000	1,430	48	289	209,000
1916	440-50	2,910	106	*561	*407,000	2,910	106	586	425,000
1917	460-40	4,120	-	759	549,000	4,120	-	749	541,000
1918	480-26	2,280	69	379	274,000	2,280	69	378	273,000
1919	510-45	1,630	31	289	209,000	1,630	31	282	204,000
1920	510-45	5,500	105	596	433,000	5,500	105	623	472,000
1921	530-36	3,810	124	797	577,000	3,810	124	784	568,000
1922	550-34	4,140	142	732	530,000	4,140	142	728	524,000
1923	570-30	3,580	115	650	471,000	3,580	115	667	484,000
1924	590-33	1,360	35	315	229,000	1,360	35	283	206,000
1925	610-33	1,580	59	359	259,000	1,580	59	372	269,000
1926	630-35	1,600	51	320	231,000	1,600	51	307	222,000
1927	650-26	2,750	86	459	332,000	2,750	86	462	349,000
1928	670-27	2,900	52	460	333,000	2,900	52	437	317,000
1929	690-28	2,740	72	499	361,000	2,740	110	506	366,000
1930	705-28	1,240	71	300	217,000	1,240	71	292	211,000
1931	720-28	462	21	157	114,000	399	21	136	98,400
1932	735-35	2,440	40	379	275,000	2,440	41	393	285,000
1933	750-30	1,780	30	295	214,000	1,780	30	289	210,000

*Erroneous figure published in Water-Supply Paper 440. Corrected mean discharge for April, 1,410 second-feet (run-off, 83,900 acre-feet).

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Weber River Basin--Continued

Weber River at Devils Slide (Croydon), Utah--Continued
(Drainage area, 1,090 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1934	765-30	406	18	12E	90,140	406	18	108	78,180
1935	790-33	1,880	25	25C	181,400	1,880	37	271	196,000
1936	810-27	2,180	60	42E	306,900	2,180	-	435	315,600
1937	830-27	1,940	-	35E	255,000	1,940	-	356	257,500
1938	860-29	2,080	76	44E	322,100	2,080	76	446	323,000
1939	880-38	670	66	27I	196,000	-	-	-	-

Weber River at Gateway (above Uintah), Utah
(Drainage area, 1,610 square miles)

1890	(a)	-	-	-	-	5,460	200	1,070	777,000
1891	(a)	4,660	200	814	590,000	4,660	240	880	638,000
1892	(a)	5,760	100	960	696,000	5,760	100	907	668,000
1895	(b)	-	-	-	-	2,400	90	534	388,000
1896	(c)	7,980	155	1,010	734,000	7,980	155	1,040	666,000
1897	(d)	5,340	160	867	630,000	5,340	160	856	622,000
1898	(e)	2,120	65	535	388,000	2,120	65	532	385,000
1899	(f)	4,770	210	1,220	886,000	-	-	-	-
1921	530-38	5,400	-	1,190	865,000	5,400	-	1,180	856,000
1922	550-35	6,670	-	1,120	807,000	6,670	-	1,110	801,000
1923	570-31	5,220	278	1,000	728,000	5,220	200	1,010	755,000
1924	590-35	1,620	68	440	319,000	1,620	85	403	292,000
1925	610-35	1,860	123	538	390,000	1,860	150	560	405,000
1926	630-34	2,150	95	506	367,000	2,150	95	487	362,000
1927	650-27	3,720	170	702	508,000	3,720	170	740	535,000
1928	670-28	3,880	106	708	515,000	3,880	106	674	490,000
1929	690-29	3,590	110	736	532,000	3,590	210	739	535,000
1930	705-29	1,630	-	422	306,000	1,630	-	417	302,000
1931	720-29	500	48	232	168,000	340	48	203	147,000
1932	735-36	3,490	79	606	439,000	3,490	-	630	456,000
1933	750-31	2,730	-	509	366,000	2,730	-	112	500
1934	765-31	397	46	185	133,900	397	46	160	116,100
1935	790-34	2,130	47	356	257,900	2,130	88	381	276,200
1936	810-28	4,180	100	734	532,900	4,180	105	749	545,000
1937	830-28	3,120	124	622	450,100	3,120	124	626	453,200
1938	860-30	2,930	143	636	460,400	2,930	143	638	461,600
1939	880-39	868	139	399	289,100	-	-	-	-

a 14th Ann. Rept., pt. 2, p. 122.

b Full. 140, p. 231.

c 18th Ann. Rept., pt. 4, p. 323.

d 19th Ann. Rept., pt. 4, p. 440.

e 20th Ann. Rept., pt. 4, p. 466.

f 21st Ann. Rept., pt. 4, p. 397.

Weber River near Plain City, Utah
(Drainage area, 2,060 square miles)

1907	250-59	5,880	58	1,740	1,250,000	5,880	58	1,760	1,270,000
1908	250-59	3,650	7	622	451,000	3,650	7	*641	465,000
1909	270-53	7,580	68	1,730	1,250,000	7,580	68	1,780	1,290,000
1910	290-54	5,130	5	1,100	793,000	5,130	5	1,030	742,000
1911	310-38	5,900	5	795	575,000	5,900	5	786	569,000
1912	330-46	6,460	58	1,060	765,000	6,460	58	1,100	796,000
1913	350-57	4,900	5	708	512,000	4,900	5	670	485,000
1914	360-53	5,700	0	1,230	889,000	5,700	0	1,240	901,000
1915	410-51	1,880	0	456	331,000	1,880	0	427	310,000
1916	440-52	6,460	0	1,100	795,000	6,460	0	1,160	842,000
1917	460-41	6,910	-	1,360	999,000	6,910	0	1,340	972,000
1918	480-28	2,370	-	599	433,000	2,370	-	571	413,000
1919	510-48	2,680	-	472	342,000	-	-	-	-
1921	530-41	7,000	6	1,510	1,090,000	7,000	6	1,480	1,080,000
1922	550-38	7,270	15	1,300	941,000	7,270	15	1,280	928,000
1923	570-33	6,820	10	1,170	847,000	6,820	10	1,210	878,000
1924	590-37	2,520	-	590	421,000	2,520	-	499	363,000
1925	610-37	2,790	12	647	468,000	2,790	12	677	495,000
1926	630-36	3,410	-	566	410,000	3,410	-	530	384,000
1927	650-28	5,030	4	790	572,000	5,030	4	834	604,000
1928	670-29	4,620	-	729	530,000	4,620	-	694	504,000
1929	690-30	4,780	4	847	614,000	4,780	4	843	611,000
1930	705-30	1,790	3	377	273,000	1,790	3	382	277,000
1931	720-30	577	1	195	141,000	577	1	155	112,000
1932	735-37	5,770	5	771	550,000	5,770	5	781	568,000
1933	750-32	3,300	10	523	385,000	3,300	10	512	370,000
1934	765-32	285	1	85.0	61,500	297	1	84.0	60,620
1935	790-35	1,620	1	308	223,300	1,620	4	313	226,600
1936	810-29	6,050	5	835	606,000	6,050	5	873	634,000
1937	830-29	4,390	8	650	470,700	4,390	8	653	472,700
1938	860-31	3,960	13	596	431,700	3,960	13	619	447,800
1939	880-40	1,610	10	352	254,800	-	-	-	-

*Erroneous figure published in Water-Supply Paper 250.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Weber River Basin--Continued

Chalk Creek at Coalville, Utah
(Drainage area, 253 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1928	670-30	578	4	73.8	53,500	578	4	71.9	52,200
1929	690-31	696	4	105	76,100	696	12	103	76,500
1930	705-31	382	-	52.0	37,700	382	-	53.6	38,700
1931	720-31	68	2	15.2	11,000	68	2	15.1	9,510
1932	735-38	537	2	64.1	46,500	537	9	63.8	49,500
1933	750-33	325	4	38.5	27,900	323	4	33.8	26,600
1934	765-33	22	1	8.7	6,270	22	1	7.2	5,190
1935	790-36	346	1	42.3	30,650	346	5	44.1	31,940
1936	810-30	594	5	73.1	53,050	594	7	71.0	53,740
1937	830-30	463	4	58.6	42,420	463	4	59.7	43,230
1938	860-32	640	6	76.7	55,550	640	4	76.4	55,280
1939	880-41	243	4	37.7	27,260	-	-	-	-

Lost Creek at Devils Slide, Utah
(Drainage area, 228 square miles)

1922	550-42	1,080	15	98.3	71,200	1,080	14	97.6	70,600
1923	570-37	1,280	14	109	78,700	1,280	8	109	78,800
1924	590-38	323	8	45.5	33,000	323	8	43.7	31,700
1925	610-38	297	8	48.6	35,200	297	10	43.8	35,300
1926	630-38	284	6	35.5	24,500	284	6	32.1	23,200
1927	650-30	760	6	70.4	51,000	760	9	71.6	52,000
1928	670-31	915	7	74.2	53,900	915	7	73.0	53,000
1929	690-32	657	7	67.0	48,500	657	7	67.5	48,900
1930	705-32	156	6	28.9	21,000	156	6	28.4	20,600
1931	720-32	61	3	16.6	12,000	61	2	13.7	9,890
1932	735-39	748	2	69.1	50,200	748	6	77.9	51,600
1933	750-34	604	6	56.9	41,300	-	-	-	-

South Fork of Ogden River near Huntsville, Utah
(Drainage area, 148 square miles)

1922	550-44	1,220	-	159	115,000	1,220	-	158	115,000
1923	570-38	1,270	-	152	110,000	1,270	-	153	110,000
1924	590-39	584	35	88.9	64,700	584	30	86.9	63,000
1925	610-40	496	30	106	76,900	496	-	107	77,600
1926	630-39	485	32	82.2	59,500	485	32	80.6	58,400
1927	650-31	1,080	35	138	91,900	1,080	40	141	102,000
1928	670-32	1,080	42	133	96,800	1,080	-	132	95,500
1929	690-33	940	-	125	90,600	940	-	125	90,600
1930	705-33	373	35	69.1	49,900	373	34	68.1	49,200
1931	720-33	170	26	45.0	32,600	170	-	43.2	31,300
1932	735-40	1,360	-	147	107,000	1,360	-	148	108,000
1933	750-35	816	-	107	77,200	816	-	107	77,500
1934	765-34	89	22	36.8	26,640	89	22	35.1	25,400
1935	790-37	488	25	84.3	61,020	488	26	84.2	60,980
1936	810-31	1,640	26	172	124,500	1,640	30	173	125,700
1937	830-31	920	30	109	78,660	920	35	109	79,260
1938	860-35	760	31	109	78,860	760	31	108	78,360
1939	880-44	357	-	74.9	54,200	-	-	-	-

Summary of yearly contents, in acre-feet, for Pine View Reservoir near Ogden, Utah

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year		
		Maximum day	Minimum day	Contents on Sept. 30	Maximum day	Minimum day	Contents on Dec. 31
*1936	-	-	-	-	4,580	0	4,580
1937	830-32	26,040	0	10,090	26,040	80	10,710
1938	860-36	45,370	9,720	24,910	45,370	10,030	10,030
1939	880-45	41,940	2,660	17,490	-	-	-

*Gates first closed on Nov. 16, 1936.

Summary of yearly discharge, in second-feet, for
Ogden River near Ogden, Utah

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1904	290-56	-	-	-	-	1,830	39	291	213,000
1905	290-56	785	42	139	101,000	785	40	133	98,600
1906	290-56	1,350	44	248	180,000	1,350	44	255	185,000
1907	290-56	3,280	52	503	354,000	3,280	56	507	367,000
1908	290-56	935	57	197	121,000	935	56	183	120,000
1909	290-56	2,250	56	448	325,000	2,250	61	473	346,000
1911	310-40	2,440	38	212	154,000	2,440	38	210	152,000
1912	330-48	2,470	40	302	220,000	-	-	-	-
1932	750-36	2,790	17	337	245,000	2,790	17	347	248,000
1933	750-36	1,760	21	222	161,000	1,760	21	221	160,000

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Weber River Basin--Continued

Ogden River near Ogden, Utah--Continued

Year	W. S. P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1934	765-35	140	-	37.8	27,400	140	-	35.5	25,720
1935	790-38	1,090	0	165	119,500	1,090	0	167	121,100
1936	810-32	5,450	8	394	278,700	3,450	0	382	277,200
1937	850-33	1,950	0	249	180,400	-	-	-	-

Note.- Records include flow diverted to power plant of Utah Power & Light Co. and, since Jan. 5, 1937, to Fine View pipe line.

JORDAN RIVER BASIN

Jordan River at Narrows, Near Lehi, Utah
(Drainage area, 2,610 square miles)

1914	590-55	794	42	431	512,000	794	112	454	329,000
1915	410-53	755	112	421	356,000	755	28	479	347,000
1916	440-53	755	28	402	291,000	755	35	407	296,000
1917	460-43	922	114	482	349,000	922	206	562	406,000
1918	480-30	753	196	594	431,000	753	149	519	376,000
1919	510-50	820	0	450	311,000	820	0	387	280,000
1920	510-50	812	0	270	196,000	812	0	332	241,000
1921	530-48	1,020	136	570	413,000	1,020	-	658	462,000
1922	550-46	1,370	-	824	597,000	1,370	454	841	609,000
1923	570-40	*1,110	454	757	547,000	1,110	478	745	536,000
1924	590-41	970	387	710	515,000	970	101	615	445,000
1925	610-42	855	40	368	256,000	855	40	360	261,000
1926	630-45	845	0	332	241,000	845	0	328	238,000
1927	650-32	750	0	319	231,000	750	0	311	225,000
1928	670-33	821	0	339	246,000	821	0	350	254,000
1929	690-34	784	0	318	230,000	784	-	321	232,000
1930	705-34	817	51	341	247,000	817	51	327	237,000
1931	720-34	727	0	234	169,000	727	0	225	165,000
1932	735-41	801	0	216	157,000	801	0	213	154,000
1933	750-40	770	-35	178	129,000	770	-35	174	125,000
1934	765-37	649	-12	125	89,160	649	-12	125	80,160
1935	790-39	486	0	104	75,530	486	3	100	72,630
1936	810-33	615	3	193	140,200	615	4	209	151,900
1937	830-34	727	6	273	197,600	727	5	271	196,100
1938	860-38	757	5	291	210,300	757	5	299	216,200
1939	880-47	747	7	318	229,900	-	-	-	-

*Erroneous figure published in Water-Supply Paper 570.

Note.- Records prior to 1934 collected at site $7\frac{1}{2}$ miles upstream.

Salt Creek near Nephi, Utah
(Drainage area, 95 square miles)

1926	630-47	187	7	30.6	22,200	187	7	31.5	22,800
1927	650-33	176	11	31.3	22,700	176	10	31.2	22,600
1928	670-34	128	10	27.1	19,700	128	11	26.8	19,400
1929	690-35	213	11	37.4	27,100	213	9	36.9	26,700
1930	705-35	100	8	15.6	11,300	100	7	15.0	10,900
1931	720-35	138	5	11.5	8,300	138	-	10.7	7,760
1932	735-42	151	4	24.8	17,900	151	-	25.4	15,400
1933	750-41	121	5	15.6	13,400	121	6	18.6	13,400
1934	765-38	75	4	9.0	6,540	75	3	8.0	5,800
1935	790-40	125	3	22.5	16,280	125	4	23.9	17,330
1936	810-34	241	7	38.5	27,920	241	7	39.1	28,400
1937	830-35	177	7	36.4	26,350	177	7	37.0	26,770

Spanish Fork at Thistle, Utah
(Drainage area, 490 square miles)

1909	270-77	865	37	165	120,000	865	-	172	125,000
1910	290-68	426	34	121	87,800	426	34	117	84,200
1911	330-54	522	23	68.4	49,600	522	-	62.4	45,600
1912	330-54	327	-	62.3	45,300	327	25	64.3	46,700
1913	360-64	454	25	90.4	65,400	454	18	91.8	66,500
1914	390-60	920	18	159	115,000	920	46	165	120,000
1915	410-57	320	20	82.1	59,600	-	-	-	-
1917	460-45	733	30	136	98,800	733	46	140	101,000
1918	480-32	283	38	88.8	64,200	283	38	85.4	62,000
1921	530-49	660	44	149	108,000	660	49	146	108,000
1922	550-47	1,250	45	186	135,000	1,250	45	184	133,000
1923	570-42	876	34	139	101,000	876	34	142	105,000
1924	590-43	215	17	59.9	45,500	215	17	52.3	38,000
1925	610-44	187	23	53.1	38,400	-	-	-	-
1933	(*)	-	-	-	-	474	23	59.1	42,700
1934	(*)	54	10	22.1	20,350	54	10	24.8	17,950
1935	(*)	401	10	55.1	39,910	401	14	58.6	42,350
1936	(*)	556	22	90.9	66,010	556	13	93.9	68,190

*From reports of Water Commissioner.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Jordan River Basin--Continued

Spanish Fork at Thistle, Utah--Continued
(Drainage area, 490 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1937	830-36	750	13	107	77,760	750	13	107	77,240
1938	860-40	577	28	99.9	72,290	577	28	100	72,750
1939	880-48	332	17	58.6	42,440	-	-	-	-

Spanish Fork at Castilla, Utah
(Drainage area, 670 square miles)

1920	610-46	1,520	35	271	197,000	1,520	67	282	204,000
1921	610-46	998	39	310	224,000	998	39	320	231,000
1922	610-46	1,440	64	350	261,000	1,440	64	358	268,000
1923	610-46	1,140	39	318	230,000	1,140	39	310	225,000
1924	610-46	603	41	224	163,000	603	36	218	158,000
1925	610-46	586	36	175	127,000	-	-	-	-
1933	(*)	-	-	-	-	617	28	176	128,000
1934	{*}	260	34	86.2	62,410	260	27	80.1	58,000
1935	{*}	551	27	150	108,700	551	29	152	110,100
1936	{*}	890	29	202	146,600	890	35	207	162,000
1937	830-37	978	40	226	163,500	978	40	227	164,000
1938	860-41	682	45	211	152,900	682	45	212	157,500
1939	880-40	552	44	181	130,700	-	-	-	-

*From reports of Water Commissioner.

Spanish Fork near Spanish Fork, Utah
(Drainage area, 670 square miles)

1904	133-271	415	28	110	79,600	415	40	112	81,400
1905	178-60	410	38	91.7	66,400	410	35	97.9	65,800
1906	212-42	907	35	178	129,000	907	48	184	134,000
1907	250-73	1,970	62	276	200,000	1,970	62	281	203,000
1908	250-73	318	46	110	80,600	318	-	103	75,000
1909	270-80	1,530	-	297	215,000	1,530	54	314	228,000
1910	290-71	777	78	208	151,000	777	71	193	142,000
1911	330-67	785	-	113	82,200	785	-	104	77,200
1912	330-67	581	-	116	83,900	581	-	117	85,300
1913	360-66	545	-	148	106,000	545	-	163	111,000
1914	390-62	1,290	-	253	135,000	1,290	-	255	135,000
1915	410-59	330	-	143	104,000	-	-	-	-
1917	460-47	1,110	-	294	213,000	-	-	-	-

Note.- Records after 1908 include flow diverted to Bureau of Reclamation canal half a mile upstream, which began diverting in the fall of 1908.

Spanish Fork near (at) Lake Shore, Utah
(Drainage area, 700 square miles)

1904	133-274	-	-	-	-	291	0	52.4	38,000
1905	178-63	129	0	29.9	19,000	129	0	23.8	19,200
1906	212-43	552	0	90.4	65,600	552	0	93.4	67,700
1910	290-75	675	1	113	81,400	675	1	107	77,800
1911	330-65	870	1	53.5	38,500	870	1	47.6	35,900
1912	330-65	213	1	46.6	33,700	213	1	52.1	37,800
1913	360-68	945	1	88.8	64,300	945	1	93.5	69,100
1914	390-64	942	1	175	127,000	942	3	183	133,000
1915	410-61	356	2	77.7	61,500	356	2	67.5	50,200
1916	440-62	792	0	121	87,200	792	0	133	100,000
1917	460-49	925	0	170	125,000	925	0	163	122,000
1918	480-33	543	0	83.5	60,500	543	0	73.1	54,200
1919	510-55	327	0	70.4	51,000	-	-	-	-
1921	530-51	671	8	178	129,000	671	8	173	130,000
1922	560-49	1,100	2	227	165,000	1,100	2	207	160,000
1923	570-45	1,060	0	169	115,000	1,060	0	167	123,000
1924	590-44	179	1	68.7	49,900	179	1	53.2	38,400
1925	610-52	276	1	46.8	33,200	-	-	-	-
1939	880-50	369	-	52.3	37,820	-	-	-	-

Hobble Creek near Springville, Utah
(Drainage area, 120 square miles)

1905	176-58	132	-	30.4	22,000	132	7	29.9	21,600
1908	250-68	112	31	41.7	30,500	112	31	41.7	30,200
1909	270-74	820	16	139	101,000	820	11	137	99,600
1910	290-79	343	11	61.9	44,210	343	11	67.1	43,500
1911	330-66	82	18	35.0	25,400	82	18	35.0	25,300
1912	330-66	189	14	38.5	28,000	189	14	37.9	28,300
1913	360-77	231	18	44.7	32,400	231	18	45.3	32,700
1914	390-68	461	20	67.0	46,500	461	24	67.8	49,100
1915	410-66	118	21	36.7	26,700	118	21	37.2	26,200
1916	440-66	824	17	121	87,700	824	17	121	87,900

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Jordan River Basin--Continued

Provo River at Vivian Park (Forks), Utah
(Drainage area, 600 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1912	350-71	-	-	-	-	2,110	226	409	297,000
1913	360-80	1,160	200	368	266,000	1,160	200	357	288,000
1914	390-70	1,760	200	454	329,000	1,760	200	451	327,000
1915	410-67	714	155	288	209,000	714	155	284	206,000
1916	440-68	1,820	208	431	313,000	1,820	208	450	327,000
1917	460-54	2,450	227	554	401,000	2,450	227	543	393,000
1918	480-35	1,240	149	345	250,000	1,240	149	337	244,000
1919	510-57	1,110	126	305	220,000	1,110	126	306	222,000
1920	510-57	2,300	202	429	312,000	2,300	202	457	318,000
1921	550-53	3,060	160	555	402,000	3,060	160	564	409,000
1922	550-51	2,580	230	543	396,000	2,580	230	545	394,000
1923	570-44	2,330	242	539	390,000	2,330	224	539	390,000
1924	590-45	800	122	272	197,000	800	122	241	175,000
1925	610-53	695	124	257	186,000	695	154	269	194,000
1926	630-40	1,190	135	292	211,000	1,190	135	288	209,000
1927	650-34	1,880	159	398	288,000	1,880	159	422	306,000
1928	670-35	1,700	157	407	296,000	1,700	157	386	280,000
1929	690-36	1,510	164	374	271,000	1,510	183	383	277,000
1930	705-36	1,000	183	302	216,000	1,000	183	302	216,000
1931	720-36	364	62	192	139,000	364	62	160	116,000
1932	735-43	1,680	35	341	249,000	1,680	-	352	256,000
1933	750-42	1,370	102	268	194,000	1,370	102	258	187,000
1934	765-39	247	54	134	96,660	306	54	125	90,210
1935	790-41	1,660	70	242	175,400	1,660	120	253	182,900
1936	810-35	1,590	123	362	263,000	1,590	148	375	272,200
1937	830-38	1,440	156	350	253,400	1,440	162	355	256,800
1938	860-42	1,630	170	363	263,200	1,630	177	366	265,100
1939	880-52	701	129	270	195,200	-	-	-	-

Weber-Provo diversion canal near Woodland, Utah

1932	750-44	120	0	9.6	6,950	120	0	9.6	6,950
1933	750-44	152	0	15.5	11,300	152	0	15.5	11,300
1934	765-41	108	0	3.4	2,470	108	0	3.4	2,470
1935	790-42	149	0	15.6	11,270	149	0	15.6	11,270
1936	810-36	144	0	23.5	17,060	144	0	23.5	17,060
1937	830-40	149	0	16.0	11,600	149	0	16.0	11,600
1938	860-44	119	0	7.8	5,670	119	0	7.8	5,670
1939	880-54	122	0	16.8	12,170	-	-	-	-

South Fork of Provo River at Vivian Park (Forks), Utah
(Drainage area, 30 square miles)

1912	330-73	-	-	-	-	74	26	34.0	24,700
1913	360-82	47	28	32.8	23,700	47	28	30.9	22,300
1914	390-72	58	24	36.2	26,200	58	24	39.1	28,300
1915	410-69	44	22	34.1	24,700	42	22	32.8	23,700
1916	440-70	50	24	35.1	25,500	50	24	36.0	26,200
1917	460-55	72	20	36.4	26,400	72	20	36.4	26,300
1918	480-37	45	22	32.4	23,400	45	22	30.1	21,800
1919	510-60	45	21	28.1	20,300	45	21	26.1	20,400
1920	510-60	96	20	33.8	24,600	96	20	36.0	26,100
1921	530-55	85	25	40.6	29,400	85	25	43.9	31,800
1922	550-53	123	36	50.8	36,800	123	36	49.1	35,600
1923	570-46	106	32	43.6	31,600	106	32	42.3	30,600
1924	590-47	46	20	31.1	22,600	35	20	27.9	20,300
1925	610-54	39	15	24.1	17,400	39	15	24.4	17,700
1926	630-50	55	18	24.9	18,000	55	18	24.0	17,400
1927	650-36	83	20	28.8	20,900	83	20	30.6	22,100
1928	670-36	71	16	30.9	22,400	71	16	31.5	22,800
1929	690-37	79	26	32.8	23,800	79	26	33.4	24,200
1930	705-37	37	20	29.2	21,100	36	20	26.5	19,200
1931	720-37	27	16	21.7	15,700	26	16	20.0	14,500
1932	735-44	104	17	24.3	17,700	104	18	26.3	19,100
1933	750-45	40	15	22.8	16,500	40	15	22.3	16,100
1934	765-42	30	13	18.9	13,650	24	13	16.6	12,000
1935	790-43	30	13	16.8	12,200	30	13	18.5	13,420
1936	810-37	54	19	24.6	17,890	54	20	26.0	18,540
1937	830-41	69	19	28.3	20,450	69	16	29.6	21,440
1938	860-45	58	23	30.2	21,390	58	23	29.6	21,430
1939	880-55	36	18	25.9	18,780	-	-	-	-

Little Cottonwood Creek near Salt Lake City, Utah
(Drainage area, 27.7 square miles)

1913	360-89	369	12	63.3	45,800	369	-	67.0	48,600
1914	(*)	-	-	-	-	-	-	78.2	56,600
1915	(*)	329	8	55.4	40,100	329	10	54.4	39,400
1916	(*)	322	10	69.6	50,500	322	10	74.7	54,200
1917	(*)	285	10	66.8	48,400	285	10	62.3	45,100
1918	(*)	293	11	50.2	43,600	293	11	61.0	44,200
1919	(*)	206	9	45.4	35,900	206	9	49.9	36,100
1920	(*)	291	13	57.7	41,800	291	13	58.1	42,800

*From reports of Salt Lake City.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Jordan River Basin--Continued

Little Cottonwood Creek near Salt Lake City, Utah--Continued
(Drainage area, 27.7 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1921	(*)	762	18	94.0	68,100	762	16	92.7	67,100
1922	(*)	663	14	72.9	52,800	665	14	72.9	52,800
1923	(*)	458	14	69.4	50,200	458	11	68.5	49,800
1924	(*)	286	11	39.2	28,500	248	10	38.5	28,000
1925	(*)	309	10	59.6	43,100	309	13	62.4	45,200
1926	(*)	239	14	54.7	39,600	239	10	51.8	37,800
1927	(*)	586	6	80.8	58,600	586	6	82.3	59,600
1928	(*)	574	12	64.6	46,900	574	9	62.1	46,000
1929	(*)	636	6	67.3	48,800	636	6	66.2	49,400
1930	(*)	272	7	46.5	33,700	272	8	47.5	34,400
1931	(*)	462	7	36.1	26,100	362	7	33.4	24,800
1932	(*)	308	8	65.8	47,900	405	9	67.4	45,900
1933	(*)	343	13	48.2	34,900	343	11	47.6	34,600
1934	(*)	205	4	28.5	20,650	205	4	28.1	20,360
1935	(*)	373	10	55.6	40,280	373	7	55.7	40,320
1936	(*)	315	7	59.8	43,420	315	9	59.9	43,490
1937	(*)	306	10	56.0	40,570	306	10	57.2	41,370
1938	(*)	494	13	76.8	55,620	494	8	76.4	55,310
1939	(*)	317	8	62.3	45,140	-	-	-	-

*From reports of Salt Lake City.

Big Cottonwood Creek near Salt Lake City, Utah
(Drainage area, 48.5 square miles)

1901	250-57	407	11	67.3	49,000	407	11	67.6	49,100
1902	270-57	370	14	62.8	45,600	370	14	62.0	45,000
1905	270-57	265	17	57.7	41,800	265	16	57.1	41,300
1906	270-57	-	16	77.2	56,000	-	19	80.8	58,900
1907	270-57	-	-	129	93,800	-	-	129	93,900
1908	270-57	520	-	90.2	65,600	520	25	90.8	66,000
1909	270-57	835	25	131	94,900	835	32	136	98,600
1910	290-86	390	44	108	78,600	390	37	104	75,000
1911	310-48	367	32	81.6	59,000	*387	21	77.7	56,200
1912	330-80	730	20	92.8	67,200	730	20	95.3	69,200
1913	360-89	376	13	76.6	55,500	376	13	74.7	54,100
1914	(+)	438	20	92.1	66,600	438	18	92.3	66,300
1915	(+)	261	17	65.3	47,300	261	17	63.8	46,200
1916	(+)	330	17	81.0	58,800	330	17	85.5	60,600
1917	(+)	499	18	96.4	71,200	499	18	97.8	70,800
1918	(+)	394	26	75.4	54,600	394	23	74.5	53,900
1919	(+)	325	22	67.8	49,100	325	20	70.2	50,800
1920	(+)	522	20	94.0	68,200	522	20	94.4	69,600
1921	(+)	694	29	123	89,500	694	32	123	89,200
1922	(+)	531	18	105	75,800	531	18	103	74,900
1923	(+)	499	22	96.0	69,500	499	22	96.5	69,800
1924	(+)	276	26	58.4	42,400	276	10	54.8	39,800
1925	(+)	336	10	72.7	52,600	336	23	73.8	53,400
1926	(+)	358	21	85.3	45,800	352	21	83.1	45,700
1927	(+)	491	20	83.7	60,600	491	20	85.9	62,200
1928	(+)	402	28	73.7	53,500	402	20	70.8	51,400
1929	(+)	414	13	79.5	57,500	414	13	79.7	57,700
1930	(+)	236	18	55.3	40,000	236	18	55.5	40,200
1931	(+)	213	15	41.8	30,200	213	14	38.7	28,000
1932	(+)	414	10	69.0	50,000	414	10	70.1	50,900
1933	(+)	467	10	64.6	46,800	467	10	63.7	46,100
1934	(+)	123	7	27.9	20,250	123	7	26.6	19,240
1935	(+)	422	9	54.7	39,610	422	9	54.6	39,630
1936	(+)	370	8	83.8	48,290	370	8	84.6	48,920
1937	(+)	326	4	54.2	39,240	326	4	55.8	40,420
1938	(+)	406	15	68.0	49,280	408	15	67.2	48,680
1939	(+)	219	11	49.5	35,850	-	-	-	-

*Erroneous figure published in Water-Supply Paper 310.

†From reports of Salt Lake City.

Mill Creek near Salt Lake City, Utah
(Drainage area, 21.3 square miles)

1899	270-61	-	-	-	-	66	2	19.9	14,400
1900	270-61	31	2	12.7	9,230	31	1	11.5	8,310
1901	270-61	47	1	12.2	8,860	47	1	12.9	9,400
1902	270-61	39	4	12.8	9,250	39	2	12.1	8,770
1903	270-61	34	2	11.8	8,530	34	3	12.3	8,910
1904	270-61	59	3	16.3	13,300	59	1	18.6	13,600
1905	270-61	38	1	13.6	9,880	38	1	13.1	9,530
1906	270-61	59	1	15.7	11,400	59	3	16.3	11,800
1907	270-61	72	4	25.1	18,200	72	7	26.3	19,100
1908	270-61	65	7	21.2	15,400	65	4	20.8	15,100
1909	270-61	112	4	29.0	21,000	112	7	29.2	21,600
1910	290-88	45	7	22.3	16,200	45	8	21.4	16,500
1911	310-49	41	3	11.9	8,660	41	3	10.6	7,660
1912	330-81	121	5	20.0	14,500	121	9	22.8	16,600
1913	360-91	-	-	25.0	18,100	-	7	23.9	17,300
1914	(*)	74	12	22.5	16,300	74	10	22.4	16,200

*From reports of Salt Lake City.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Jordan River Basin--Continued

Mill Creek near Salt Lake City, Utah--Continued
(Drainage area, 21.3 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1915	(*)	32	7	14.7	10,700	32	7	14.0	10,200
1916	(*)	43	8	16.5	12,000	43	8	16.5	12,000
1917	(*)	54	4	17.4	12,600	54	4	17.6	12,800
1918	(*)	37	6	14.2	10,300	37	5	13.7	9,900
1919	(*)	45	3	12.4	9,500	45	3	13.2	9,570
1920	(*)	66	4	15.8	11,500	66	4	16.0	11,600
1921	(*)	104	5	23.9	17,300	104	5	24.6	17,800
1922	(*)	92	7	23.5	17,000	92	7	23.6	17,100
1923	(*)	-	-	-	-	-	8	14.5	10,500
1924	(*)	33	7	11.4	8,300	33	7	10.7	7,780
1925	(*)	35	6	12.4	8,960	35	6	12.4	8,960
1926	(*)	35	6	10.2	7,390	35	4	9.8	7,090
1927	(*)	60	1	16.3	11,800	60	1	17.7	12,800
1928	(*)	67	7	16.9	12,500	67	7	16.5	12,000
1929	(*)	69	6	17.8	12,900	68	6	17.4	12,300
1930	(*)	24	6	11.1	8,050	24	6	11.1	8,040
1931	(*)	23	6	9.9	7,180	23	4	8.9	6,410
1932	(*)	55	4	12.7	9,250	55	4	13.4	9,700
1933	(*)	57	6	12.8	9,270	57	6	12.9	9,310
1934	(*)	10	4	7.1	5,110	9	4	6.3	4,530
1935	(*)	42	4	9.2	6,630	42	3	8.8	6,410
1936	(*)	56	2	12.6	9,120	56	2	13.2	9,600
1937	(*)	51	2	11.6	8,380	51	2	11.7	8,490
1938	(*)	67	4	14.6	10,650	67	4	14.2	10,290
1939	(*)	27	4	9.1	6,600	-	-	-	-

*From reports of Salt Lake City.

Parleys Creek near Salt Lake City, Utah
(Drainage area, 50.1 square miles)

1899	270-64	228	4	48.5	35,200	228	4	49.6	36,000
1900	270-64	39	4	14.2	10,300	39	3	12.7	9,190
1901	270-64	109	3	20.0	14,500	109	3	20.0	14,600
1902	270-64	95	2	16.9	12,500	95	2	16.7	12,100
1903	270-64	134	3	20.3	14,700	134	2	20.5	14,900
1904	270-64	209	2	38.2	27,800	209	3	38.8	28,300
1905	270-64	57	2	13.6	9,870	57	2	12.6	9,120
1906	270-64	148	3	27.1	19,700	146	3	20.4	20,300
1908	270-64	-	-	-	-	81	3	25.0	18,200
1909	270-64	274	3	60.1	43,600	274	8	61.3	44,500
1911	310-51	54	4	15.8	11,500	54	4	15.1	10,900
1912	330-82	228	2	36.9	26,600	226	2	38.2	27,700
1913	360-92	139	4	23.8	20,800	139	4	23.6	20,700
1914	(*)	139	5	32.5	23,600	139	4	32.4	23,600
1915	(*)	62	4	18.5	13,400	62	4	17.9	12,900
1916	(*)	129	4	28.1	20,400	129	4	28.3	20,600
1917	(*)	242	3	39.8	28,800	242	3	39.9	28,900
1918	(*)	75	6	20.0	14,500	75	6	19.6	14,200
1919	(*)	87	4	17.8	12,900	87	4	17.8	12,900
1920	(*)	215	6	38.2	27,800	213	7	39.5	28,600
1921	(*)	230	13	55.0	39,800	230	12	54.9	39,800
1922	(*)	317	4	50.4	36,500	317	4	50.0	36,200
1923	(*)	245	10	36.7	26,600	245	9	35.7	25,900
1924	(*)	57	5	14.0	10,200	57	5	13.1	9,510
1925	(*)	65	6	18.8	13,600	65	5	18.8	13,600
1926	(*)	75	5	16.6	12,000	75	5	16.6	12,000
1927	(*)	129	6	25.2	18,700	129	6	26.8	19,400
1928	(*)	129	9	25.9	18,800	129	8	26.3	18,400
1929	(*)	156	2	31.6	22,900	156	2	32.0	23,200
1930	(*)	41	5	13.7	9,910	41	5	12.7	9,190
1931	(*)	34	4	9.7	7,000	34	3	9.1	6,600
1932	(*)	147	3	23.9	17,300	147	4	24.6	17,900
1933	(*)	122	4	21.1	15,300	122	4	20.8	15,000
1934	(*)	9	1	6.1	4,440	9	1	5.4	3,950
1935	(*)	73	1	14.7	10,660	73	4	15.2	10,980
1936	(*)	194	5	30.8	22,330	194	6	31.2	22,690
1937	(*)	160	5	26.3	19,060	160	5	26.7	19,330
1938	(*)	160	6	26.1	18,880	160	6	26.7	18,590
1939	(*)	60	7	15.3	11,110	-	-	-	-

*From reports of Salt Lake City.

City Creek near Salt Lake City, Utah
(Drainage area, 19.2 square miles)

1899	270-69	-	-	-	-	122	3	20.0	26,700
1900	270-69	31	6	10.6	7,690	31	5	9.8	7,140
1901	270-69	72	5	12.6	9,130	72	5	12.7	9,250
1902	270-69	58	4	12.4	9,020	58	4	12.2	8,860
1903	270-69	63	4	12.5	9,060	63	4	13.0	9,440
1904	270-69	70	6	17.1	12,400	70	6	17.2	12,500
1905	270-69	45	7	12.7	9,220	45	7	12.6	9,120
1906	270-69	69	8	18.7	13,600	69	8	19.2	13,900
1907	270-69	132	9	28.7	20,200	132	6	28.9	21,000
1908	270-69	80	6	20.3	14,700	81	8	20.3	14,700

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Jordan River Basin--Continued

City Creek near Salt Lake City, Utah--Continued
(Drainage area, 19.2 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1912	330-85	92	5	16.7	12,100	92	5	17.1	12,400
1913	350-95	75	5	13.6	9,870	56	5	13.5	9,750
1914	(*)	56	6	17.9	13,000	76	6	18.0	13,300
1915	(*)	37	6	13.1	9,490	37	6	13.2	9,670
1916	(*)	70	6	17.8	12,900	70	6	17.9	13,000
1917	(*)	105	4	23.0	16,700	105	4	23.2	16,800
1918	(*)	49	4	14.4	10,400	49	4	13.9	10,100
1919	(*)	58	6	15.2	11,000	58	6	15.4	11,100
1920	(*)	95	4	17.2	12,500	95	4	17.4	12,600
1921	(*)	163	8	27.5	19,900	163	8	27.7	20,100
1922	(*)	118	4	24.6	17,600	118	4	24.3	17,600
1923	(*)	97	7	20.8	15,200	97	6	21.1	15,300
1924	(*)	39	7	13.2	9,850	39	4	12.3	9,820
1925	(*)	53	7	14.8	10,700	53	7	14.8	10,700
1926	(*)	54	6	14.7	10,700	54	6	15.2	11,000
1927	(*)	79	6	18.4	13,300	79	6	18.6	13,500
1928	(*)	121	8	18.2	13,200	121	7	17.7	12,800
1929	(*)	100	7	20.2	14,600	100	7	20.9	15,100
1930	(*)	26	7	11.7	8,470	26	6	10.7	7,750
1931	(*)	21	6	8.7	6,300	21	6	8.4	6,070
1932	(*)	79	5	16.7	11,400	79	4	16.1	11,700
1933	(*)	81	4	14.2	10,300	81	4	14.4	10,400
1934	(*)	9	4	6.8	4,920	8	1	6.1	4,420
1935	(*)	58	1	13.3	9,610	58	3	13.8	9,960
1936	(*)	88	6	19.6	14,240	88	6	19.7	14,320
1937	(*)	79	4	17.2	12,450	79	4	17.2	12,420
1938	(*)	78	7	17.0	12,320	78	6	17.1	12,370
1939	(*)	44	5	12.5	9,070	-	-	-	-

*In reports of Salt Lake City.

SEVIER LAKE BASIN

Sevier River near Kingston, Utah
(Drainage area, 1,110 square miles)

1915	410-76	790	20	197	143,000	790	20	195	141,000
1916	440-78	900	51	251	182,000	900	51	274	200,000
1917	460-63	894	-	247	179,000	894	-	228	165,000
1918	480-45	750	20	153	111,000	750	20	149	108,000
1919	510-69	490	13	133	96,400	490	13	121	87,300
1920	510-69	-	23	219	159,000	-	23	238	172,000
1921	530-61	620	13	218	168,000	620	13	220	169,000
1922	550-58	1,450	47	359	260,000	1,450	-	367	289,000
1923	570-51	854	52	260	181,000	854	47	247	179,000
1924	590-61	433	12	130	94,300	433	12	117	94,500
1925	610-59	390	15	97.9	70,900	390	15	105	75,600
1926	630-55	306	16	105	75,100	306	16	92.4	66,800
1927	650-38	-	15	102	73,800	-	-	117	84,100
1928	670-38	439	-	105	75,200	439	-	94.1	68,300
1929	590-38	530	-	118	85,200	530	-	120	86,900
1930	705-38	-	17	85.7	62,000	-	-	83.1	60,000
1931	720-38	137	5	59.0	42,700	-	5	44.1	31,600
1932	735-45	742	12	133	96,300	742	12	122	111,000
1933	750-45	-	10	84.2	61,000	-	10	81.3	59,700
1934	765-43	174	6	60.6	43,860	174	6	60.5	35,550
1935	790-44	302	7	78.1	56,500	-	-	84.7	61,210
1936	810-38	400	7	82.1	59,590	400	7	86.1	62,510
1937	830-42	963	13	176	127,700	963	13	185	133,800
1938	860-46	1,500	14	177	128,300	1,500	14	183	132,100
1939	880-57	670	8	116	84,870	-	-	-	-

Summary of yearly contents, in acre-feet, for Piate Reservoir near Marysvale, Utah

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year		
		Maximum day	Minimum day	Contents on Sept. 30	Maximum day	Minimum day	Contents on Dec. 31
1914	390-83	59,900	9,900	9,900	59,900	0	6,000
1915	440-82	45,100	0	12,300	45,100	5,600	24,300
1916	440-83	50,700	1,800	1,800	50,700	0	0
1917	460-64	60,100	0	7,400	60,100	0	22,800
1918	480-46	56,800	0	0	56,800	0	18,000
1919	510-71	58,000	0	0	58,000	0	16,600
1920	510-71	67,200	0	12,100	67,200	3,100	31,200
1921	530-62	62,300	3,100	21,700	62,300	12,300	32,600
1922	550-60	82,300	12,300	30,800	82,300	25,800	45,500
1923	570-52	69,700	10,000	10,000	69,700	4,020	23,000
1924	590-53	61,000	2,300	2,300	61,000	1,840	21,500
1925	610-60	51,700	50	6,720	51,700	50	18,000
1926	630-57	42,400	0	1,860	42,400	0	10,200
1927	650-39	41,200	0	9,500	41,200	0	20,000
1928	670-39	54,900	0	0	54,900	0	13,500
1929	690-39	46,100	0	17,400	46,100	11,400	29,100
1930	705-39	53,400	5,360	6,400	53,400	5,360	27,000
1931	720-39	49,600	0	0	49,600	0	12,700

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Sevier Lake Basin--Continued

Summary of yearly contents, in acre-feet, for Plute Reservoir near Marysville, Utah--Continued

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year		
		Maximum day	Minimum day	Contents on Sept. 30	Maximum day	Minimum day	Contents on Dec. 31
1932	735-46	59,000	0	10,400	59,000	6,160	16,000
1933	750-47	40,600	0	1,800	40,600	0	13,000
1934	765-44	27,750	0	0	27,750	0	9,700
1935	790-45	27,580	0	4,880	28,700	100	14,920
1936	810-39	40,820	800	12,930	40,820	6,160	18,280
1937	830-43	79,520	6,160	35,920	79,520	18,530	48,890
1938	860-47	81,480	1,400	1,400	81,480	0	27,730
1939	880-58	64,670	0	17,190	-	-	-

Summary of yearly discharge, in second-feet, for
Sevier River below Plute Dam, near Marysville, Utah
(Drainage area, 2,440 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1913	360-100	860	4	266	192,000	860	3	258	187,000
1914	390-84	1,510	-	344	249,000	1,310	-	382	278,000
1915	410-79	706	30	330	239,000	706	29	302	220,000
1916	440-85	962	-	384	279,000	962	-	442	322,000
1917	460-65	1,160	-	429	311,000	1,160	-	387	268,000
1918	480-47	608	-	266	193,000	608	-	250	189,000
1919	510-71	1,040	-	286	171,000	1,040	0	223	162,000
1920	510-71	890	-	280	203,000	890	1	302	220,000
1921	530-62	661	1	312	226,000	661	3	322	234,000
1922	550-60	2,550	7	568	412,000	2,550	7	573	417,000
1923	570-53	746	3	366	265,000	746	3	349	264,000
1924	590-54	700	-	250	181,000	700	2	224	163,000
1925	610-61	470	2	185	134,000	470	-	203	148,000
1926	630-57	665	-	212	154,000	665	-	189	145,000
1927	650-40	534	-	177	128,000	534	-	182	133,000
1928	670-40	745	-	215	156,000	745	-	206	150,000
1929	690-39	797	-	181	131,000	797	-	186	136,000
1930	705-40	688	1	208	150,000	688	1	194	141,000
1931	720-40	493	6	138	100,000	493	4	131	95,000
1932	735-47	851	4	218	158,000	851	4	247	180,000
1933	750-48	592	3	186	134,000	592	2	175	127,000
1934	765-45	360	2	128	92,730	360	3	112	81,270
1935	790-46	611	10	134	96,750	611	10	147	106,700
1936	810-40	488	6	151	94,640	488	6	134	97,920
1937	830-44	700	14	209	151,000	700	14	216	156,100
1938	860-48	831	14	276	200,000	831	1	268	194,000
1939	880-59	684	1	211	152,700	-	-	-	-

Sevier River near Sigurd (Vermilion), Utah
(Drainage area, 3,340 square miles)

1915	410-83	522	2	143	103,000	516	2	103	74,000
1916	440-87	535	3	197	121,000	941	3	258	168,000
1917	460-70	941	7	278	201,000	423	7	197	143,000
1918	480-52	379	4	109	79,000	379	4	105	76,400
1919	510-78	765	2	105	76,300	765	2	89.1	64,100
1920	510-78	350	4	104	75,400	354	4	131	95,400
1921	530-67	354	4	134	96,900	286	4	140	101,000
1922	550-65	2,370	24	450	306,000	2,370	24	430	312,000
1923	570-56	426	1	203	147,000	426	1	185	134,000
1924	590-57	366	3	93.4	67,800	366	3	77.0	55,600
1925	610-64	339	1	75.7	54,700	339	1	69.2	49,800
1926	630-60	188	8	64.5	46,700	180	8	57.8	41,900
1927	650-42	162	5	60.2	43,600	162	5	60.3	43,400
1928	670-42	294	-	79.5	57,600	294	-	76.7	55,600
1929	690-22	352	3	70.3	51,000	352	3	76.8	55,500
1930	705-41	295	-	73.3	53,100	295	-	73.1	52,500
1931	720-31	170	3	62.0	44,900	170	3	53.4	38,300
1932	735-48	261	2	86.2	62,600	261	2	96.9	70,200
1933	750-49	326	0	89.0	64,600	326	0	85.5	61,700
1934	765-46	174	1	54.3	39,320	174	1	47.3	34,260
1935	790-47	229	0	44.9	32,480	229	0	45.5	32,350
1936	810-41	241	1	49.8	36,120	241	1	56.4	40,950
1937	830-45	387	1	78.9	57,110	387	1	86.7	62,780
1938	860-49	466	1	136	98,230	466	1	153	110,800
1939	880-61	286	0	91.8	66,440	-	-	-	-

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Sevier Lake Basin--Continued

Sevier River near Gunnison, Utah
(Drainage area, 3,990 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1901	390-91	505	5	76.1	55,200	505	5	80.3	57,900
1902	390-92	366	4	76.7	55,600	366	4	77.0	55,100
1903	390-92	366	4	101	72,900	366	4	106	76,100
1904	390-92	372	10	81.7	59,300	372	10	76.4	55,100
1905	390-92	640	16	116	84,000	-	-	-	-
1906	250-85	-	-	-	-	2,240	42	462	335,000
1907	250-85	2,070	192	562	407,000	2,070	134	583	422,000
1908	250-85	701	57	371	269,000	701	57	366	266,000
1909	270-93	2,000	87	541	391,000	2,000	87	548	367,000
1910	290-96	1,410	30	405	293,000	1,410	30	379	274,000
1911	310-63	1,050	0	278	201,000	1,050	0	324	255,000
1912	330-97	1,320	2	355	257,000	1,320	2	318	230,000
1913	360-105	754	44	277	201,000	754	44	268	186,100
1914	390-90	1,490	72	381	276,000	1,490	72	422	306,000
1915	410-85	548	61	251	181,000	548	61	215	155,000
1916	440-89	910	69	287	208,000	910	69	387	266,000
1917	460-72	980	86	414	300,000	-	-	-	-

Sevier River below San Pitch River, near Gunnison, Utah
(Drainage area, 4,880 square miles)

1918	480-54	870	66	271	196,000	870	66	263	190,000
1919	510-81	966	63	249	180,000	966	63	227	164,000
1920	510-81	1,250	66	245	178,000	1,250	66	283	206,000
1921	530-69	1,380	91	375	271,000	1,380	91	383	277,000
1922	550-87	2,580	137	629	456,000	2,580	137	641	464,000
1923	570-58	1,100	111	425	307,000	1,100	111	413	299,000
1924	590-58	505	55	271	197,000	505	55	228	165,000
1925	610-56	488	56	190	137,000	488	56	186	155,000
1926	630-82	266	48	166	120,000	266	48	155	112,000
1927	650-43	-	46	153	111,000	-	46	158	112,000
1928	670-43	481	31	177	128,000	481	31	168	122,000
1929	690-43	489	55	196	142,000	489	55	209	181,000
1930	705-42	471	46	185	134,000	471	46	181	130,000
1931	720-42	280	31	136	98,800	280	31	114	82,000
1932	735-49	380	46	147	107,000	380	54	162	118,000
1933	750-50	404	15	155	112,000	404	15	147	106,000
1934	785-47	263	8	95.2	89,900	263	8	84.4	60,700
1935	790-49	269	9	86.5	82,630	269	9	89.9	64,920
1936	810-42	514	23	120	86,770	514	23	138	100,000
1937	830-46	503	36	174	128,100	503	39	187	156,700
1938	860-50	659	53	243	176,200	657	53	265	192,200
1939	880-62	451	32	195	141,100	-	-	-	-

Summary of yearly contents, in acre-feet, for Sevier Bridge Reservoir near Juab, Utah

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year		
		Maximum day	Minimum day	Contents on Sept. 30	Maximum day	Minimum day	Contents Dec. 31
1914	*390-95	100,000	-	10,400	100,000	6,870	50,500
1915	*440-94	-	6,470	6,470	-	6,470	-
1916	*440-94	-	4,280	4,280	-	4,280	-
1917	*460-75	194,000	4,790	86,800	194,000	86,800	136,000
1918	*480-56	223,000	30,200	30,200	223,000	30,200	88,800
1919	*510-83	175,000	5,400	5,400	175,000	5,400	46,800
1920	*510-83	104,000	5,740	16,000	104,000	13,900	86,600
1921	530-71	171,000	16,300	67,500	171,000	63,500	132,000
1922	550-69	251,000	63,500	156,000	251,000	133,000	201,000
1923	570-60	232,000	44,200	44,400	232,000	44,200	120,000
1924	590-60	199,000	2,650	2,650	199,000	2,650	87,500
1925	610-68	112,000	3,880	5,630	112,000	2,650	51,500
1926	630-54	96,500	1,840	4,070	96,500	1,840	31,600
1927	650-44	32,200	1,380	1,030	82,200	1,030	31,400
1928	670-44	74,000	0	5,630	74,000	0	32,100
1929	690-44	77,300	3,360	20,200	77,300	3,360	40,700
1930	705-43	87,600	13,000	21,400	87,600	16,100	42,600
1931	720-43	84,100	0	0	84,100	0	17,600
1932	735-51	63,400	0	5,910	63,400	0	24,100
1933	750-51	54,900	0	0	54,900	0	18,580
1934	765-48	48,270	0	0	48,270	0	19,020
1935	790-49	48,870	0	0	36,590	0	15,750
1936	810-43	44,240	0	7,200	44,240	5,140	28,860
1937	830-47	74,990	5,140	15,060	74,990	12,970	40,670
1938	860-51	97,310	15,270	52,520	99,450	41,120	49,450
1939	880-63	155,600	39,540	46,070	-	-	-

*Contains gage-height record only, contents not previously published.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Sevier Lake Basin--Continued

Sevier River near Juab, Utah
(Drainage area, 5,120 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1912	330-99	921	0.5	354	265,000	921	3.0	415	301,000
1913	360-107	1,310	2.2	305	221,000	1,310	2.2	280	189,000
1914	390-98	2,030	2.7	453	328,000	2,030	2.7	485	355,000
1915	410-89	1,050	3	303	219,000	1,050	4	277	202,000
1916	440-95	1,080	7	335	244,000	1,080	6	313	228,000
1917	460-74	1,225	4	328	237,000	1,225	2	336	245,000
1918	480-56	1,430	0	355	257,000	1,430	0	330	241,000
1919	510-84	1,230	8	298	215,000	1,230	1	291	212,000
1920	510-84	1,090	1	248	180,000	1,090	1	247	180,000
1921	530-71	1,280	5	291	210,000	1,280	3	304	222,000
1922	550-69	2,140	3	474	343,000	2,140	3	515	376,000
1923	570-50	1,470	4	601	436,000	1,470	2	541	395,000
1924	590-51	1,580	2	337	244,000	1,580	1	334	244,000
1925	610-65	985	1	221	150,000	985	-	223	163,000
1926	630-64	1,100	-	194	141,000	1,100	3	191	139,000
1927	650-45	1,130	1	168	122,000	1,130	1	176	129,000
1928	670-45	1,260	3	180	131,000	1,260	-	171	125,000
1929	695-45	1,220	-	190	137,000	1,220	-	209	155,000
1930	705-44	924	-	197	142,000	924	-	194	141,000
1931	720-44	961	-	180	130,000	961	-	161	118,000
1932	735-61	1,080	2	184	112,000	1,080	-	156	114,000
1933	750-52	1,110	-	177	128,000	1,110	-	173	126,000
1934	765-49	1,030	-	111	80,445	1,030	-	104	77,000
1935	790-50	580	-	97.5	75,550	580	2	98.8	71,500
1936	810-44	734	-	113	85,420	734	1	126	81,200
1937	830-48	948	1	163	117,800	948	2	172	124,200
1938	860-51	870	2	189	138,600	870	2	174	126,200
1939	880-64	1,100	2	192	138,800	-	-	-	-

Sevier River at Oasis, Utah
(Drainage area, 8,080 square miles)

1913	360-113	1,280	6	144	104,000	1,280	6	85.8	62,000
1914	390-104	1,650	18	234	170,000	1,650	18	240	174,000
1915	410-84	885	14	96.9	70,265	885	14	70.4	60,900
1916	440-103	687	11	51.8	37,500	687	11	50.3	36,300
1918	480-63	278	14	48.5	35,400	144	14	40.1	28,900
1919	510-91	138	13	31.8	23,000	85	-	31.7	22,900
1920	510-91	75	-	32.8	23,800	75	-	33.6	24,400
1921	530-73	369	14	33.9	24,500	369	-	33.6	24,400
1922	550-71	1,550	-	172	125,000	1,550	-	191	138,000
1923	570-52	1,120	32	242	175,000	1,120	32	230	165,000
1924	590-52	145	4	41	25,000	145	-	32.6	23,600
1925	610-70	43	13	22.8	16,500	43	9	21.3	15,400
1926	630-66	26	6	13.8	10,000	26	4	11.4	8,250
1927	650-46	18	3	10.0	7,240	-	-	-	-

East Fork of Sevier River near Kingston, Utah
(Drainage area, 1,260 square miles)

1914	390-121	530	14	130	94,300	530	-	131	94,700
1915	410-97	462	-	130	94,400	462	-	131	95,100
1916	440-130	507	17	110	79,400	507	17	116	84,400
1917	460-104	910	-	178	127,000	910	-	169	122,000
1918	480-85	270	16	102	73,600	270	-	104	75,100
1919	510-113	288	-	86.2	62,300	288	-	83.9	60,600
1920	510-113	393	-	87.2	63,300	393	-	89.1	64,900
1921	530-75	396	-	101	72,800	396	-	101	73,000
1922	550-73	1,690	-	201	146,000	1,690	-	216	156,000
1923	570-64	339	-	113	81,900	339	-	93.9	67,900
1924	590-64	393	13	102	75,900	393	-	103	74,700
1925	610-71	323	-	77.6	56,100	323	-	75.9	54,900
1926	630-67	388	14	83.5	60,400	388	-	83.3	60,300
1927	650-47	265	-	71.2	51,800	265	-	71.2	51,500
1928	670-46	249	-	86.2	61,800	249	-	86.1	63,900
1929	690-46	593	-	80.6	58,500	593	-	77.9	56,500
1930	705-45	216	-	79.7	57,800	216	-	84.8	61,500
1931	720-45	193	7	57.1	41,300	193	12	51.7	37,400
1932	735-52	413	12	80.3	58,200	413	11	79.5	57,700
1933	750-53	229	11	61.4	44,400	229	12	61.0	44,200
1934	765-50	145	9	37.7	27,270	145	9	36.8	28,100
1935	790-51	340	10	53.6	38,780	340	10	54.6	39,600
1936	810-45	252	9	43.6	31,680	252	9	41.2	29,910
1937	830-49	408	10	56.4	40,910	408	14	63.8	46,220
1938	860-53	315	14	47.2	34,180	315	14	57.2	41,400
1939	880-65	313	14	107	77,280	-	-	-	-

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Sevier Lake Basin--Continued

San Pitch River near Gunnison, Utah
(Drainage area, 886 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1901	75-196	125	9	31	22,600	125	9	30	21,800
1902	85-96	155	10	27	20,200	155	7	27	19,860
1903	100-152	158	3	75	26,000	158	3	37	27,180
1904	133-283	264	7	44.6	32,560	264	6	43.7	31,920
1905	176-69	720	6	60.9	44,300	720	8	64.3	46,860
1913	360-125	456	.1	23.5	17,000	456	.8	26.2	19,000
1914	390-150	546	1.9	62.8	45,500	546	1.5	61.7	44,600
1915	410-105	564	1.5	27.4	19,800	564	1.6	26.5	19,200
1917	460-139	457	0	42.1	30,500	-	-	-	-

BEAVER RIVER BASIN

Beaver River near Beaver, Utah
(Drainage area, 82 square miles)

1915	410-106	359	10	62.7	46,300	359	-	61.3	44,300
1916	440-189	356	-	57.8	42,200	356	-	59.1	50,200
1917	460-147	352	-	53.8	36,900	352	-	51.6	37,400
1918	480-134	189	-	44.1	31,900	189	-	44.7	32,500
1919	510-161	305	16	48.5	35,100	305	16	47.6	34,400
1920	510-161	613	-	66.9	50,000	613	-	69.4	50,300
1921	530-73	560	-	73.6	53,400	560	-	74.2	53,800
1922	550-77	680	-	80.1	56,400	680	-	80.3	58,300
1923	570-67	523	-	71.2	51,500	523	-	71.2	51,400
1924	590-67	210	13	40.0	29,000	210	-	36.0	27,600
1925	610-74	297	-	50.3	36,900	297	-	53.6	36,800
1926	630-74	523	-	51.3	44,400	523	-	56.7	43,200
1927	650-49	352	18	49.8	36,000	352	15	51.8	37,600
1928	670-48	333	-	56.3	40,900	333	-	54.9	39,900
1929	690-48	525	-	63.5	46,000	525	-	63.5	46,000
1930	705-47	308	-	50.7	36,700	308	-	49.9	36,100
1931	720-47	95	10	25.8	18,700	95	10	24.0	17,400
1932	735-54	470	-	52.0	37,700	470	-	53.5	38,800
1933	750-57	409	-	46.4	33,600	409	-	46.3	33,500
1934	765-82	65	10	22.8	16,460	65	10	21.4	15,470
1935	790-53	387	10	49.9	36,110	387	12	51.1	37,010
1936	810-46	445	15	66.8	48,350	445	-	68.1	49,440
1937	830-50	693	-	77.5	56,120	693	-	77.1	55,800
1938	860-54	405	15	60.6	43,820	405	15	60.6	43,870
1939	880-66	134	16	34.7	25,110	-	-	-	-

Beaver River at Adamsville, Utah
(Drainage area, 272 square miles)

1914	390-173	-	-	-	-	501	-	82.5	59,700
1915	410-109	235	10	55.0	40,000	235	-	53.4	38,700
1916	440-191	192	3.4	50.8	36,900	192	3.4	54.7	39,700
1917	460-149	206	1	36.6	27,600	206	1	32.4	23,500
1918	480-136	70	.5	22.6	16,400	82	1.3	24.1	17,400
1919	510-163	137	.3	27.7	20,000	137	-	25.2	18,500
1920	510-163	729	-	60.8	44,200	729	1	65.1	47,500
1921	530-81	499	2	65.4	47,400	499	2	67.5	46,900
1922	550-79	555	2	72.9	52,800	555	2	75.0	52,900
1923	570-69	302	9	53.5	38,700	302	9	52.4	37,900
1924	590-68	64	0	26.0	18,900	64	0	20.1	14,800
1925	610-76	113	0	21.0	15,200	113	3	27.4	19,800
1926	630-72	330	1	41.1	29,700	330	1	36.8	26,700
1927	660-50	65	1	24.5	17,800	65	1	27.9	20,200
1928	670-49	74	1	25.5	19,800	68	1	21.9	15,900
1929	690-49	252	1	32.6	23,600	252	1	34.8	25,200
1930	705-48	111	1	31.1	22,500	-	-	30.5	22,100
1931	720-48	70	0	20.8	15,000	70	0	15.8	11,400
1932	735-55	244	0	24.8	18,000	224	-	29.2	21,800
1933	750-58	175	1	25.7	18,600	175	1	25.3	18,500
1934	765-53	200	0	17.3	12,640	200	0	13.7	9,840
1935	790-54	218	0	18.4	13,300	218	1	20.2	14,640
1936	810-47	483	3	57.2	41,550	-	-	-	-
1938	860-55	-	-	-	-	412	5	47.5	34,360
1939	880-67	90	0	26.6	18,490	-	-	-	-

Beaver River at Rockyford Dam, near Minersville, Utah
(Drainage area, 512 square miles)

1914	390-176	-	-	-	-	344	1.3	68.2	49,300
1915	410-110	198	1.3	49.9	36,200	198	2	48.3	35,000
1917	460-151	162	6.4	39.8	28,600	162	5.1	39.7	28,700
1918	480-138	126	5.1	26.1	18,100	126	5.1	32.2	23,100
1919	510-166	106	4	33.3	24,100	106	5	27.8	20,100
1920	510-166	600	5	39.4	28,600	600	5	43.3	31,400
1921	630-83	586	13	75.0	54,300	586	13	78.8	56,800

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Beaver River Basin--Continued

Beaver River at Rockyford Dam, near Minersville, Utah--Continued
(Drainage area, 512 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1922	550-81	564	22	84.6	61,200	564	12	81.7	59,200
1923	570-70	236	12	54.9	39,800	236	10	55.9	40,500
1924	590-70	-	7	38.9	28,200	-	7	33.2	24,100
1925	610-77	103	7	30.7	22,200	103	5	29.4	21,200
1926	630-74	105	5	35.9	25,000	105	7	35.4	26,400
1927	650-51	107	7	32.5	23,500	107	5	32.2	23,300
1928	670-50	121	5	30.8	22,300	121	7	31.2	22,700
1929	690-50	121	7	34.6	25,100	121	7	34.7	25,100
1930	705-49	124	7	35.4	26,400	124	7	36.2	26,200
1931	720-49	107	5	25.6	18,500	107	4	24.6	17,800
1932	735-56	109	4	25.5	20,700	109	4	28.8	20,900
1933	750-59	118	4	25.4	19,100	118	4	26.9	19,500
1934	765-54	111	4	17.6	12,720	111	3	16.6	12,050
1935	790-55	107	3	18.8	13,640	107	4	18.9	13,690
*1936	810-48	114	4	34.9	25,360	-	-	-	-
1938	860-56	144	7	53.2	38,510	144	5	48.7	35,240
1939	880-70	128	6	35.9	25,980	-	-	-	-

*Calendar year incomplete.

MOJAVE RIVER BASIN

Mojave River at lower narrows, near Victorville, Calif.

1900	300-401	80	17	34.5	24,900	3,200	25	44.4	32,200
1901	300-401	4,820	29	148	103,000	4,820	42	143	104,000
1902	300-401	77	33	55.9	40,400	59	33	50.5	35,600
1903	300-401	13,415	32	148	107,000	13,415	32	149	108,000
1904	300-401	28	26	47.7	34,800	70	28	47.0	34,100
1905	300-401	5,410	27	135	97,500	5,410	27	136	98,900
1931	720-54	-	-	-	-	122	19	30.9	22,400
1932	735-61	7,830	15	115	84,200	7,830	15	115	84,400
1933	750-64	55	15	33.0	23,900	55	16	32.9	23,840
1934	765-58	543	16	32.9	23,830	543	16	32.6	23,610
1935	790-59	846	15	45.7	33,900	846	15	46.1	33,370
1936	810-54	70	18	28.1	20,480	140	18	29.3	21,270
1937	830-55	4,880	11	208	150,200	4,880	11	208	150,200
1938	860-61	16,000	19	260	188,100	16,000	19	261	189,300
1939	880-75	351	15	41	29,680	-	-	-	-

ANTELOPE VALLEY BASIN

Rock Creek near Valyamo, Calif.

1924	590-85	18	2.0	5.77	4,180	18	2.0	4.76	3,450
1925	610-86	12	1.7	3.95	2,880	12	1.6	3.91	2,830
1926	630-98	251	1.6	16.8	12,200	251	2.6	18.4	13,300
1927	650-60	433	5.5	22.0	15,000	433	4.5	21.5	15,600
1928	670-58	46	2.2	7.53	5,470	46	1.8	6.84	4,820
1929	690-58	55	1.8	5.35	3,870	56	2.0	5.20	3,770
1930	710-60	45	2.0	6.51	6,160	45	2.6	9.03	6,840
1931	720-59	51	2.5	5.90	4,270	51	2.6	5.80	4,200
1932	735-58	154	2.8	21.8	15,700	154	4.4	22.1	15,000
1933	750-56	22	3.0	8.21	5,950	59	2.4	7.69	5,570
1934	765-60	193	2.0	5.59	4,760	177	1.5	8.96	6,480
1935	790-62	217	1.5	24.6	17,800	196	4.0	22.6	16,360
1936	810-56	55	2.2	6.90	5,000	55	2.2	6.58	4,770
1937	830-59	353	2.2	31.3	22,530	-	-	-	-
1939	880-78	124	6	14.7	10,660	-	-	-	-

OWENS LAKE BASIN

Owens River near Round Valley, Calif.
(Drainage area, 450 square miles)

1904	300-235	635	152	288	184,000	635	152	287	208,000
1905	300-236	535	145	231	157,000	535	145	216	167,000
1906	300-236	839	153	341	247,000	839	162	358	260,000
1907	300-236	1,190	183	380	276,000	1,190	183	381	275,000
1908	300-236	441	191	250	189,000	441	174	241	175,000
1909	300-236	836	149	294	213,000	836	149	302	218,000
1910	300-237	578	139	262	190,000	578	127	250	182,000
1911	300-237	1,080	127	349	253,000	1,080	164	354	263,000
1912	330-133	486	121	214	156,000	485	121	199	145,000
1913	360-157	435	120	198	143,000	435	120	195	141,000
1914	390-192	1,010	130	340	247,000	1,010	159	358	259,000
1915	410-125	508	156	248	150,000	508	132	235	170,000
1916	440-210	625	132	258	187,000	625	150	265	192,000
1917	460-163	875	150	286	207,000	875	160	287	206,000
1918	480-147	683	150	218	158,000	683	150	222	161,000

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Owens Lake Basin--Continued

Owens River near Round Valley, Calif.--Continued
(Drainage area, 450 square miles)

Year	W. S. P. (no. and page)	Water year ending Sept. 30			Calendar year				
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1919	610-175	595	100	223	162,000	595	100	207	150,000
1920	610-175	366	110	181	131,000	366	110	183	133,000
1921	630-86	453	104	197	136,000	453	40	183	132,000
1922	650-84	693	29	247	179,000	693	29	261	188,000
1923	670-75	450	20	202	146,000	-	-	-	-
1928	670-53	337	90	162	118,000	337	90	151	109,000
1929	690-53	232	80	127	91,700	232	80	123	89,400
1930	705-53	243	77	120	86,500	243	77	120	87,100
1931	720-61	170	56	105	75,900	170	56	98.5	71,400
1932	735-70	618	58	181	131,000	618	88	188	137,000
1933	750-68	439	86	157	114,000	439	86	158	114,000
1934	765-62	289	70	130	94,300	289	70	128	91,080
1935	790-64	455	71	167	121,000	455	71	170	123,500
1936	810-57	488	111	192	139,600	488	114	198	143,600
1937	830-61	570	85	222	160,500	901	85	230	166,200
1938	860-65	901	140	288	237,700	878	150	340	245,500
1939	880-82	314	121	187	135,500	-	-	-	-

Owens River at Pleasant Valley, near Bishop, Calif.
(Drainage area, 596 square miles)

1918	630-85	1,210	-	-	-	1,120	-	-	194,000
1919	630-85	390	164	283	205,000	390	164	268	191,000
1920	630-85	606	179	268	195,000	605	169	264	191,000
1921	630-85	1,180	124	258	197,000	1,180	98	254	184,000
1922	630-86	1,120	98	345	250,000	1,120	102	354	256,000
1923	630-86	514	154	264	192,000	514	154	260	188,000
1924	630-86	297	101	177	129,000	355	101	169	123,000
1925	630-86	588	130	199	144,000	588	134	199	144,000
1926	630-86	630	124	207	150,000	630	124	211	152,000
1927	650-86	916	152	298	216,000	916	168	307	225,000
1928	670-54	613	105	223	162,000	613	105	237	150,000
1929	690-54	307	94	171	124,000	307	94	187	121,000
1930	705-54	364	103	164	119,000	364	103	164	119,000
1931	720-62	202	77	135	97,700	206	77	130	94,400
1932	735-71	972	111	257	187,000	972	102	270	196,000
1933	750-69	618	102	218	158,000	618	125	213	154,000
1934	765-63	344	90	168	121,000	338	90	165	119,200
1935	790-65	660	123	229	165,700	660	123	235	169,800
1936	810-58	690	155	265	193,500	690	160	270	196,200
1937	830-62	860	128	295	214,600	1,020	128	305	221,100
1938	860-66	1,240	182	449	324,700	1,240	185	468	337,800
1939	880-83	345	155	249	180,300	-	-	-	-

Owens River near Big Pine (Tinemaha), Calif.
(Drainage area, 1,930 square miles)

1906	300-244	-	-	-	-	2,610	162	642	468,000
1907	300-244	1,710	164	536	389,000	1,710	164	558	405,000
1908	300-245	744	36	336	243,000	744	36	300	218,000
1909	300-245	1,680	83	457	330,000	1,680	83	470	340,000
1910	300-245	1,520	92	355	257,000	1,520	92	346	251,000
1911	300-245	2,000	125	584	425,000	2,000	102	602	436,000
1912	330-135	517	73	303	219,000	517	73	273	198,000
1913	360-159	540	53	244	177,000	540	53	240	174,000
1914	390-194	2,890	70	512	371,000	2,890	135	543	393,000
1915	410-126	805	86	391	283,000	805	86	380	275,000
1916	440-212	1,700	154	507	368,000	1,700	154	540	392,000
1917	460-164	980	86	442	320,000	980	86	405	293,000
1918	480-148	1,250	58	330	239,000	1,250	58	345	250,000
1919	510-177	980	61	309	224,000	980	61	270	196,000
1920	510-177	524	57	222	161,000	476	57	225	163,000
1921	530-83	524	50	219	159,000	1,250	50	228	165,000
1922	550-86	1,220	61	323	277,000	1,100	68	430	290,000
1923	570-77	628	59	251	182,000	538	59	233	169,000
1924	590-84	426	45	200	145,000	426	45	164	119,000
1925	610-85	456	51	175	126,000	456	52	187	135,000
1926	630-88	521	51	211	153,000	1,150	51	229	166,000
1927	650-57	1,150	88	321	253,000	682	88	335	243,000
1928	670-55	516	50	258	187,000	454	50	232	168,000
1929	690-55	398	9	203	147,000	398	9	195	141,000
1930	705-55	478	6	292	212,000	478	6	312	226,000
1931	720-63	508	7	307	222,000	506	7	305	221,000
1932	735-72	721	136	320	252,000	721	10	310	225,000
1933	750-70	553	8	308	221,000	553	8	318	230,000
1934	765-64	511	16	290	210,000	584	5	289	194,700
1935	790-66	584	5	315	227,800	524	114	338	244,500
1936	810-59	576	45	328	238,400	576	9	295	214,400
1937	830-63	970	0	341	246,900	970	0	406	293,600
1938	860-67	1,510	62	635	460,000	1,510	160	664	480,600
1939	880-84	763	15	414	299,700	-	-	-	-

Note.- Storage above station in Hillside Reservoir since 1911 and in Tinemaha Reservoir since 1928.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Owens Lake Basin--Continued

Rock Creek at Sherwin Hill, near Bishop, Calif.
(Drainage area, 51.7 square miles)

Year	W. S. P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1923	630-91	104	8.5	25.8	18,700	104	2.4	25.5	18,400
1924	630-92	34	2.4	15.9	11,600	58	5.5	15.5	11,200
1925	630-92	73	5.5	22.1	16,000	73	3.8	22.0	16,000
1926	630-92	134	3.2	20.1	14,500	134	3.2	20.1	14,500
1927	650-58	162	4.5	34.6	25,100	162	9.5	36.2	26,300
1928	670-56	108	11.0	25.4	18,400	108	7.5	23.6	17,100
1929	690-56	58	7.0	16.8	12,200	58	4.9	16.1	11,600
1930	705-56	71	1.8	14.6	10,800	71	1.8	14.8	10,700
1931	720-64	27	4.6	10.7	7,730	27	5.5	10.6	7,640
1932	735-73	142	5.5	27.9	20,200	142	8.0	28.8	20,900
1933	750-71	78	8.0	18.2	13,200	78	7.0	17.4	12,800
1934	765-65	22	2.0	11.4	8,240	22	4.9	11.0	7,960
1935	790-67	77	4.9	19.0	13,760	77	4.5	19.4	14,080
1936	810-60	113	4.5	24.1	17,520	113	3.5	24.6	17,870
1937	830-64	110	3.5	27.4	19,860	110	8.5	27.9	20,210
1938	860-68	210	8.5	50.5	36,530	210	10	53.5	38,720
1939	880-65	45	11	24.0	17,420	-	-	-	-

Rock Creek near Round Valley, Calif.
(Drainage area, 96 square miles)

1904	300-264	109	15	35.5	25,800	109	15	40.3	29,300
1905	300-264	81	14	29.8	21,800	81	14	26.2	19,000
1906	300-264	215	17	59.1	43,000	215	17	63.7	46,300
1907	300-264	195	22	60.2	43,800	195	22	60.0	43,600
1908	300-265	80	17	35.3	25,700	80	17	31	22,900
1909	300-265	172	16	43.5	31,600	172	16	46.7	33,800
1910	300-265	94	19	40.0	29,000	94	19	38.3	27,700
1911	300-265	225	25	60.8	44,100	225	27	62.4	45,200
1912	330-139	64	17	33.8	24,600	64	15	30.9	22,400
1913	350-164	61	15	31.4	22,700	61	15	31.7	23,000
1914	390-199	360	22	53.9	39,000	360	24	56.3	40,700
1915	410-131	111	19	38.7	28,000	111	19	38.0	27,500
1916	440-216	157	27	51.6	37,500	157	30	54.8	39,800
1917	460-169	170	24	56.2	40,700	170	24	52.2	37,800
1918	480-153	185	19	34.9	25,300	185	19	36.8	26,600
1919	510-181	159	-	37.5	27,200	159	23	36.4	26,300
1920	510-181	84	19	32.5	23,600	84	19	31.6	23,000
1921	530-91	184	21	36.0	26,000	184	21	55.6	26,800
1922	550-69	137	18	44.8	32,400	137	18	45.9	33,200
1923	570-79	95	21	34.7	26,100	-	-	-	-
1931	720-65	30	8.5	14.2	10,300	59	8.5	14.5	10,500
1932	735-74	143	11	33.1	24,000	143	14	34.6	25,100
1933	750-72	86	7.5	23.6	17,100	86	7.5	22.4	16,200
1934	765-66	80	9	17.3	12,500	80	9	16.2	11,750
1935	790-68	81	10	24.4	17,670	81	10	25.1	18,130
1936	810-61	104	13	28.1	20,770	104	8.5	29.1	21,130
1937	830-65	107	8.5	32.6	23,260	161	8.5	32.9	23,870
1938	850-69	261	9.5	67.0	41,320	261	9.5	60.1	43,650
1939	880-66	41	14	27.8	20,110	-	-	-	-

Pine Creek at division box, near Bishop, Calif.
(Drainage area, 37.9 square miles)

1922	630-96	-	-	-	-	286	14	63.3	45,800
1923	630-96	181	16	45.8	33,100	181	16	43.0	31,100
1924	630-96	73	13	22.0	16,000	73	13	20.4	14,800
1925	630-96	142	13	36.4	26,500	142	14	36.8	26,600
1926	630-96	154	13	33.6	24,500	154	15	34.2	24,800
1927	650-59	262	17	53.9	39,000	262	18	55.0	39,800
1928	670-57	170	16	38.4	27,900	170	13	36.4	26,400
1929	690-57	124	12	29.8	21,800	124	12	29.6	21,400
1930	705-58	118	11	25.9	18,700	118	11	26.0	18,800
1931	720-66	55	12	19.6	14,200	55	12	20.0	14,500
1932	735-75	275	13	48.7	36,400	275	13	49.9	36,200
1933	750-73	167	15	32.7	23,700	167	15	31.6	22,800
1934	765-67	67	14	25.4	16,900	67	14	23.5	16,800
1935	790-69	122	10	33.6	27,970	122	10	39.4	28,550
1936	810-62	247	16	49.0	35,660	247	16	48.9	35,490
1937	830-66	238	17	53.0	38,390	238	15	53.1	38,450
1938	860-71	313	15	76.9	55,680	313	17	80.1	57,990
1939	880-67	140	21	38.2	27,690	-	-	-	-

Pine Creek near Round Valley, Calif.
(Drainage area, 58 square miles)

1904	300-274	233	5	31.0	22,800	233	5	34	24,800
1905	300-275	119	1	20.2	14,600	119	1	16.6	12,000
1906	300-275	-	4	44.1	32,100	-	-	44.4	32,400
1907	300-275	262	5	45.2	33,000	262	8	46.7	34,100
1908	300-275	104	1	17.4	12,700	104	1	14.7	10,700
1909	300-275	318	1.8	41.4	30,100	318	1.5	42.2	30,600
1910	300-276	277	1.5	29.6	21,300	277	1.2	28.4	20,600
1911	300-276	370	1.2	46.6	33,900	370	2.3	48.3	34,900
1912	330-141	118	0	12.6	9,130	118	0	10.9	7,900
1913	360-166	193	.2	9.28	6,710	193	.2	9.72	7,040

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Owens Lake Basin--Continued

Pine Creek near Round Valley, Calif.--Continued
(Drainage area, 58 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1914	390-200	251	1.3	36.4	26,400	251	1.1	76.3	26,300
1915	410-132	140	.6	18.8	13,700	140	.6	18.7	13,600
1916	440-217	244	.7	21.8	15,800	244	.7	21.7	15,700
1917	460-170	233	.7	24.4	17,700	233	.2	24.2	17,500
1918	480-154	220	.2	14.5	10,400	220	.2	15.2	11,700
1919	510-124	194	.1	10.8	7,780	194	.2	8.81	6,370
1920	510-184	110	.1	8.09	5,370	110	.1	8.41	6,110
1921	530-93	264	.4	11.7	9,780	264	.4	11.8	9,890
1922	550-81	-	.2	28.6	20,800	-	.2	28.4	20,600
1923	570-81	85	.2	7.88	5,700	-	-	-	-
1931	720-67	6.5	.1	1.23	887	11	.1	1.58	1,000
1932	735-76	264	.1	22.3	16,200	264	.2	23.1	16,700
1933	750-74	96	.5	10.3	7,490	96	.5	9.63	6,980
1934	765-68	40	.1	4.15	3,010	40	.1	4.32	3,130
1935	790-70	123	.5	14.2	10,290	123	.5	14.4	10,450
1936	810-63	199	.8	20.6	14,930	199	1.2	20.4	14,830
1937	830-67	238	.6	27.4	19,810	238	.6	28.4	20,530
1938	860-71	395	.8	38.5	42,320	395	2.4	60.8	43,980
1939	880-88	88	1.4	13.7	9,900	-	-	-	-

WALKER LAKE BASIN

Summary of yearly contents, in acre-feet, for Bridgeport Reservoir near Bridgeport, Calif.
(Drainage area, 362 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year		
		Maximum day	Minimum day	Contents on Sept. 30	Maximum day	Minimum day	Contents on Dec. 31
1926	(*)	-	-	320	-	-	7,730
1927	(*)	42,580	324	26,710	42,580	7,740	35,730
1928	(*)	43,010	-	-	43,010	-	10,870
1929	(*)	20,330	-	-	20,330	-	-
1930	(*)	10,470	-	-	10,470	-	5,340
1931	(*)	11,160	40	321	11,160	308	2,460
1932	735-73	42,500	302	21,100	42,500	2,520	27,300
1933	750-75	40,400	4,510	4,640	40,400	3,450	9,000
1934	765-72	21,700	416	432	21,700	416	6,200
1935	790-72	33,090	416	16,740	33,090	6,240	24,040
1936	810-65	43,070	16,340	23,200	43,070	23,000	30,120
1937	830-69	41,730	13,450	13,450	41,730	13,310	29,880
1938	860-73	44,580	13,310	30,850	44,580	25,980	31,090
1939	880-90	42,460	5,840	5,920	-	-	-

*Not previously published.

Summary of yearly discharge, in second-feet, for East Walker River near Bridgeport, Calif.
(Drainage area, 362 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1923	570-84	648	54	157	114,000	648	54	155	112,000
1924	590-86	231	4	59.2	43,000	-	-	-	-
1926	630-99	334	2	101	73,100	334	2	99.2	71,900
1927	650-62	491	2	129	93,600	491	2	135	86,900
1928	670-60	326	-	116	34,000	326	-	111	80,700
1929	690-60	255	-	72.0	52,200	255	-	74.4	54,000
1930	705-64	304	2	74.0	53,600	304	-	70.2	50,800
1931	720-69	169	6	37.5	27,200	169	6	39.8	28,900
1932	735-79	363	6	108	78,600	363	-	107	77,600
1933	750-76	408	6	106	76,900	408	6	109	78,800
1934	765-73	221	6	65.0	47,020	221	6	64.2	46,500
1935	790-73	287	8	104	75,280	287	6	104	74,970
1936	810-66	451	6	139	100,700	451	6	140	101,900
1937	830-70	452	7	169	122,000	452	7	167	120,700
1938	860-74	1,220	9	332	240,700	1,220	9	331	261,300
1939	880-91	297	9	131	94,540	-	-	-	-

Walker River near Wabuska, Nev.

1903	100-169	964	1	176	127,000	964	1	170	123,000
1904	133-328	1,520	40	367	266,000	1,520	40	443	322,000
1921	530-96	730	1	106	76,800	730	1	94.2	68,300
1922	550-98	2,170	4	342	248,000	2,170	6	338	267,000
1923	570-88	662	12	181	131,000	662	50	190	138,000
1924	590-89	290	0	-	52,600	-	-	-	-

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
Walker Lake Basin--Continued

Walker River near Wabuska, Nev.--Continued

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day ¹	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1926	650-100	119	6	40.3	29,200	119	6	401	29,000
1927	650-63	1,520	8	138	100,000	1,520	26	148	108,000
1928	670-61	408	8	64.5	46,900	408	8	48.7	35,400
1929	690-61	76	2	25.3	18,300	76	2	24.9	18,000
1930	705-65	82	4	20.0	14,500	82	4	20.5	14,800
1931	720-70	40	0	12.9	9,540	40	0	9.2	6,670
1932	735-80	1,250	0	82.4	59,800	1,250	13	89.1	64,600
1933	750-77	-	16	49.6	35,900	-	15	49.4	35,800
1934	765-74	129	1	28.0	21,000	-	-	-	-

Walker River at Schurz, Nev.
(Drainage area, 2,850 square miles)

1914	390-208	2,530	0	665	480,000	2,530	41	677	491,000
1915	410-137	1,170	4	257	186,000	1,170	4	256	171,000
1916	440-222	1,450	1	389	282,000	1,450	1	425	309,000
1917	460-173	1,860	1	405	293,000	1,860	1	364	284,000
1918	480-156	2,040	-	189	137,000	2,040	-	218	158,000
1920	510-186	183	0	54.8	39,800	183	0	51.3	37,200
1921	530-98	622	0	63.7	46,200	622	0	52.7	38,200
1922	550-100	1,970	0	303	220,000	1,970	0	330	239,000
1923	570-90	810	1	145.8	105,000	810	1	157	114,000
1924	590-90	293	0	67.8	49,300	198	0	26.8	19,500
1925	610-90	250	0	7.5	5,420	250	0	12.7	9,220
1926	630-102	121	0	19.8	14,400	155	0	21.4	15,500
1927	650-64	1,480	1	103	74,900	1,480	1	110	79,700
1928	670-62	350	-	40.3	29,300	350	-	27.6	20,000
1929	690-62	54	1	7.1	5,160	54	2	8.3	6,020
1930	705-66	54	1	6.7	4,830	54	1	6.0	4,350
1931	720-71	91	-	6.6	4,780	91	-	5.6	4,090
1932	735-81	1,200	1	51.4	37,300	1,200	1	53.2	38,600
1933	750-78	136	1	24.8	18,000	-	-	-	-

West Walker River near Coleville, Calif.
(Drainage area, 245 square miles)

1903	100-172	-	-	-	-	2,030	60	311	225,000
1904	135-323	2,100	60	364	265,000	2,100	60	389	283,000
1905	176-89	1,160	59	244	177,000	1,160	44	216	167,000
1906	212-71	3,300	44	573	417,000	3,300	50	582	423,000
1907	250-136	4,170	85	664	483,000	4,170	85	675	491,000
1916	440-224	1,560	19	344	250,000	1,560	19	759	261,000
1917	460-175	2,200	-	353	*256,000	2,200	-	341	247,000
1918	480-158	2,100	30	285	192,000	2,110	30	283	205,000
1919	510-188	1,960	50	253	183,000	1,960	50	256	170,000
1920	510-188	1,410	51	235	171,000	1,410	-	239	174,000
1921	530-100	2,190	-	311	225,000	2,190	-	305	221,000
1922	550-102	2,290	-	368	266,000	2,290	-	372	270,000
1923	570-81	1,570	34	305	221,000	1,570	30	304	220,000
1924	590-92	711	14	93.6	67,900	711	14	85.5	62,000
1925	610-91	1,490	19	275	200,000	1,490	27	221	204,000
1926	630-103	1,160	25	177	128,000	1,160	24	175	127,000
1927	650-65	2,000	24	326	236,000	2,000	30	331	239,000
1928	670-63	1,280	27	190	138,000	1,280	23	182	132,000
1929	690-63	1,110	23	151	109,000	1,110	19	150	119,000
1930	705-68	1,320	-	184	133,000	1,320	-	186	135,000
1931	720-72	743	14	98.6	71,500	743	14	96.7	70,200
1932	735-82	1,680	21	279	202,000	1,680	-	280	203,000
1933	750-79	1,820	-	166	120,000	1,820	-	165	120,000
1934	765-75	595	24	131	94,970	595	24	134	96,980
1935	790-74	1,590	27	268	193,900	1,590	27	269	194,700
1936	810-67	1,270	27	280	203,300	1,270	30	279	202,300
1937	830-71	1,800	-	276	200,000	-	-	-	217,500
1938	860-76	-	-	-	-	-	-	-	-

*Erroneous figures published in Water-Supply Paper 460. Corrected run-off in acre-feet for October, 9,780; November, 6,130; December, 4,240; January, 2,150; February, 4,110; March, 5,720; July, 52,300.

HUMBOLDT-CARSON SINK BASIN

Carson River Basin

East Fork of Carson River near Gardnerville, Nev.

(Drainage area, 361 square miles)

1891	(a)	1,884	375	61.3	445,000	1,880	377	£19	449,000
1892	(a)	2,590	290	550	400,000	5,540	290	£10	444,000
1893	(a)	5,540	390	901	654,000	3,230	382	£43	611,000
1901	75-187	-	40	-	-	3,160	14	568	410,000
1902	85-111	1,800	40	333	242,000	1,800	28	298	216,000
1903	100-177	2,850	21	447	324,000	2,850	21	462	355,000

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Humboldt-Carson Sink Basin--Continued

Carson River Basin--Continued

East Fork of Carson River near Gardnerville, Nev.--Continued (Drainage area, 381 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1908	250-121	-	-	-	-	860	82	257	186,000
1909	270-138	3,430	82	554	386,000	3,430	104	570	413,000
1910	290-166	2,070	75	429	311,000	2,020	75	392	283,000
1925	810-96	-	-	-	-	2,990	51	376	272,000
1928	830-107	1,140	31	198	143,000	1,140	31	195	141,000
1927	850-68	2,540	37	442	320,000	2,540	64	451	327,000
1928	870-66	2,570	37	257	187,000	-	-	-	-
1936	810-69	2,290	23	347	252,000	2,290	41	348	252,400
1937	830-73	1,680	30	314	228,000	-	-	-	-

Carson River near Empire, Nev.

(Drainage area, 988 square miles)

1901	75-189	-	-	-	-	3,790	25	533	407,000
1902	85-109	1,710	10	367	265,000	1,710	10	351	253,000
1903	100-175	2,060	12	425	307,000	2,060	12	429	310,000
1904	133-337	3,250	13	691	500,000	3,250	30	728	528,000
1905	176-111	1,430	0	348	252,000	1,430	0	293	212,000
1906	212-79	3,020	12	747	542,000	3,020	51	798	579,000
1909	250-123	750	17	248	180,000	750	17	212	154,000
1909	270-140	2,930	-	613	443,000	2,930	67	678	490,000
1910	290-159	1,580	8	494	356,000	1,580	8	456	316,000
1911	310-10F	4,440	14	865	625,000	4,440	36	875	634,000
1912	330-162	2,030	11	250	181,000	2,030	11	219	159,000
1913	360-186	2,090	14	267	193,000	2,090	14	204	191,000
1914	390-217	5,180	22	806	583,000	5,180	22	837	606,000
1915	410-144	3,100	4	451	327,000	3,100	4	437	315,000
1916	440-228	3,100	16	647	471,000	3,100	16	675	492,000
1917	460-182	3,250	13	643	465,000	3,250	13	612	445,000
1918	480-164	1,440	5	300	217,000	1,440	5	302	219,000
1919	510-199	2,630	6	321	233,000	2,630	6	309	224,000
1920	510-199	1,350	5	192	139,000	1,350	5	199	144,000
1921	530-110	-	-	-	-	2,000	9	331	262,000
1922	550-111	3,290	16	534	397,000	3,290	16	536	403,000

Note.- Station moved above Brunswick mill power canal in 1908. Records for 1903 do not include flow of canal, but flow is included for 1909-22.

Carson River near Fort Churchill (Clifton), Nev.

(Drainage area, 1,450 square miles)

1912	330-168	1,640	9	240	174,000	1,640	9	226	164,000
1914	390-218	6,150	-	853	617,000	6,150	-	839	628,000
1915	440-230	2,220	8	411	297,000	2,220	8	419	303,000
1916	440-230	3,960	12	756	550,000	3,960	23	734	574,000
1917	460-183	3,050	27	660	478,000	3,050	27	612	442,000
1918	480-166	1,500	4	308	223,000	1,500	4	318	230,000
1919	510-201	3,140	2	354	256,000	3,140	2	343	248,000
1920	510-201	1,680	2	200	145,000	-	-	-	-
1921	530-112	-	-	-	-	1,850	9	477	295,000
1922	550-112	3,900	9	635	460,000	3,900	37	630	493,000
1923	570-99	2,170	0	455	329,000	2,170	0	433	313,000
1924	590-99	390	0	126	91,200	-	-	-	-
1925	610-98	-	-	-	-	1,960	-	372	270,000
1926	630-109	982	0	158	114,000	982	0	164	119,000
1927	650-69	2,430	0	470	341,000	2,430	5	472	340,000
1928	670-67	2,710	0	234	170,000	2,710	0	234	164,000
1929	690-67	746	0	126	91,500	746	6	115	83,300
1930	705-71	1,290	6	206	149,000	1,290	6	212	153,000
1931	720-75	625	3	89.8	56,000	625	3	81.2	58,700
1932	735-85	2,200	-	-	307,000	2,200	-	429	311,000
1933	750-81	1,370	13	168	122,000	1,370	13	182	131,000
1934	765-77	694	0	105	75,300	694	0	88.1	63,820
1935	790-76	1,900	0	290	210,100	1,900	0	299	216,200
1936	810-70	2,040	0	378	274,700	2,040	0	381	276,600
1937	830-74	2,110	0	362	262,000	5,500	0	413	298,900
1938	860-79	5,500	0	801	579,900	4,370	18	779	564,000
1939	880-96	790	0	193	139,600	-	-	-	-

West Fork of Carson River at Woodfords, Calif.

(Drainage area, 70 square miles)

1890	(a)	-	-	-	-	1,280	42	206	150,000
1891	(a)	740	34	130	94,900	740	34	128	92,900
1901	75-188	-	-	-	-	896	41	148	107,000
1902	85-113	448	30	137	98,500	448	30	133	95,500
1903	100-180	502	25	117	85,000	502	25	119	86,300
1906	212-76	1,570	26	225	163,000	1,570	22	231	168,000
1907	270-147	1,480	22	290	210,000	1,450	47	202	212,000
1908	270-147	643	26	99.7	72,400	643	26	91.4	66,400
1909	270-147	1,250	17	195	142,000	1,230	17	2.2	153,000
1910	290-167	580	20	142	103,000	580	20	124	89,600

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Humboldt-Carson Sink Basin--Continued

Carson River Basin--Continued

West Fork of Carson River at Woodfords, Calif.--Continued
(Drainage area, 70 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1911	510-117	1,500	20	206	150,000	1,300	20	211	153,000
1912	330-176	710	17	100	73,000	710	17	96.1	69,800
1913	360-193	647	23	103	74,400	647	19	101	73,400
1914	390-222	1,050	9	149	108,000	1,050	9	149	108,000
1915	410-148	672	8	120	87,200	-	-	-	-
1917	460-188	944	3	131	95,000	944	3	125	90,800
1918	480-169	618	-	77.5	56,100	618	-	78.2	56,600
1919	510-208	958	0	101	73,200	958	0	102	73,800
1920	510-208	742	-	73.0	53,100	-	-	-	-

HUMBOLDT RIVER BASIN

Humboldt River at Palisade, Nev.
(Drainage area, 5,010 square miles)

1903	100-157	-	-	-	-	1,660	21	330	238,000
1904	133-226	1,840	24	524	379,000	1,840	57	547	396,000
1906	176-74	1,220	34	297	215,000	1,220	34	278	201,000
1906	212-66	2,620	20	635	461,000	-	-	-	-
1912	330-178	2,650	65	417	302,000	2,650	-	450	327,000
1913	360-195	1,270	60	359	260,000	1,270	60	338	245,000
1914	390-224	2,750	38	742	537,000	2,750	38	741	537,000
1915	410-150	382	12	133	96,600	382	12	118	85,300
1916	440-235	1,780	17	333	242,000	1,780	21	340	246,000
1917	460-190	3,170	32	635	459,000	3,170	32	638	462,000
1918	480-171	595	13	129	93,600	595	13	120	86,700
1919	510-211	1,440	9	245	178,000	1,440	9	258	172,000
1920	510-211	803	14	177	122,000	803	14	166	135,000
1921	530-116	4,210	20	662	624,000	4,210	30	870	629,000
1922	550-116	3,350	27	613	444,000	3,350	27	614	444,000
1923	570-102	1,450	27	325	235,000	1,450	34	333	241,000
1924	590-102	537	9	161	117,000	537	9	136	98,500
1925	610-101	2,220	15	435	315,000	2,220	-	462	334,000
1926	630-112	459	6	126	90,900	459	6	99.1	71,800
1927	650-72	1,620	14	339	245,000	1,620	14	347	251,000
1928	670-70	986	11	196	143,000	986	11	188	137,000
1929	690-70	1,900	14	160	116,000	1,900	14	161	117,000
1930	705-74	794	16	147	107,000	794	16	148	107,000
1931	720-77	216	-	51.1	37,000	216	-	44.2	32,000
1932	735-66	2,580	7	429	311,000	2,580	-	436	316,000
1933	750-82	1,330	11	182	132,000	1,330	11	178	129,000
1934	765-78	1,632	3	34.8	25,170	1,632	3	34.2	24,740
1935	790-77	1,890	13	221	159,900	1,890	11	221	159,700
1936	810-71	2,290	11	372	270,200	2,290	18	377	273,900
1937	830-75	1,380	11	262	189,700	1,380	11	260	185,400
1938	860-80	1,660	18	316	228,700	1,660	22	328	237,200
1939	880-97	1,900	15	240	173,400	-	-	-	-

Humboldt River near Golconda, Nev.
(Drainage area, 10,800 square miles)

1895	(a)	-	-	-	-	1,040	1	237	171,000
1896	(b)	1,610	1	207	150,000	1,610	14	226	164,000
1897	(c)	3,100	5	642	468,000	3,100	5	649	471,000
1898	(d)	485	1	156	110,000	485	1	130	93,400
1899	(e)	2,230	1	641	465,000	2,230	20	661	480,000
1900	(f)	464	3	138	99,100	464	2	118	85,100
1901	75-182	3,080	1	255	184,000	3,080	1	256	186,000
1902	85-98	523	1	122	88,500	523	1	120	86,800
1903	100-155	740	1	171	123,200	740	1	171	125,000
1905	176-76	356	0	165	120,000	356	0	133	96,100
1906	212-57	1,420	0	364	264,000	1,420	0	373	270,000
1907	250-87	3,160	10	948	686,000	3,160	100	998	722,000
1908	250-87	680	2	283	206,000	680	2	239	174,000
1909	270-97	900	2	340	246,000	900	3	335	243,000
1911	330-181	776	0	180	129,000	776	0	181	130,000
1912	330-181	1,240	0	195	142,000	1,240	6	220	160,000
1913	360-197	680	10	187	135,000	680	26	184	133,000
1914	390-225	1,730	19	642	464,000	1,730	19	635	459,000
1915	410-152	352	0	65.9	47,700	352	0	52.9	35,400
1916	440-237	1,320	0	226	164,000	1,320	2	232	169,000
1917	460-192	1,950	2	460	333,000	-	-	-	-

a U. S. Geol. Survey Bull. 140, p. 217.

b 18th Ann. Rept., pt. 4, p. 303.

c 19th Ann. Rept., pt. 4, p. 427.

d 20th Ann. Rept., pt. 4, p. 438.

e 21st Ann. Rept., pt. 4, p. 392.

f 22d Ann. Rept., pt. 4, p. 401.

Humboldt River near Orleans, Nev.
(Drainage area, 13,800 square miles)

1897	(a)	3,050	20	640	465,000	3,050	26	641	465,000
1900	(b)	430	28	144	104,000	430	22	120	86,600

a 19th Ann. Rept., pt. 4, p. 428.

b 22d Ann. Rept., pt. 4, p. 402.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Humboldt-Carson Sink Basin--Continued

Humboldt River Basin--Continued

Humboldt River near Orleans, Nev.--Continued
(Drainage area, 15,800 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1901	75-183	2,620	10	248	180,000	2,620	10	249	171,000
1902	85-96	511	19	91.0	66,000	511	19	88	63,600
1903	100-152	580	19	124	90,000	680	8	121	87,800
1904	133-292	950	3	297	194,000	950	3	289	210,000
1905	176-79	440	0	119	85,900	440	0	101	73,000
1906	212-59	1,010	12	299	213,000	1,010	16	303	221,000
1907	250-90	2,220	16	695	504,000	2,220	75	720	588,000
1908	260-90	670	16	187	136,000	670	16	164	119,000
1909	270-99	680	6	291	210,000	680	6	287	207,000
1911	330-184	760	-	165	119,000	760	-	165	119,000
1912	330-184	1,240	-	182	133,000	1,240	-	203	148,000
1913	360-198	1,270	-	174	126,000	1,270	-	170	123,000
1914	390-227	2,000	30	632	487,000	2,000	19	613	444,000
1915	410-164	318	0	77.9	66,400	318	0	72.0	62,100
1916	440-239	788	3	161	110,000	788	0	152	110,000
1918	480-174	291	0	91.7	66,400	291	0	87.9	63,600
1919	510-216	585	0	79.0	57,200	585	0	77.3	56,000
1920	510-216	120	0	8.6	6,220	120	0	10.1	7,350
1921	530-121	1,960	0	432	312,000	1,960	6	435	315,000
1922	560-122	2,260	-	442	319,000	-	-	-	-
1932	735-87	-	0	184	134,000	-	-	-	-

Starr Creek near Death, Nev.

1914	390-231	372	4	44.9	32,500	372	3.5	44.9	32,500
1915	410-159	62	2	10.7	7,760	62	1.6	10.0	7,240
1916	440-243	126	1	18.5	13,400	126	1.3	18.5	13,400
1917	460-197	383	3	40.8	29,500	383	-	41.1	29,800
1918	480-179	83	1	10.2	7,390	83	1.4	9.6	6,920
1919	510-219	184	1	13.9	10,100	184	1.6	13.6	9,820
1920	510-219	167	1	20.7	15,000	167	1	21.9	16,900
1921	530-124	391	5	53.4	39,700	391	6	53.3	39,700
1922	560-126	253	-	33.8	24,400	253	-	33.0	23,900
1923	570-108	218	-	26.0	18,900	218	-	26.8	19,400
1924	590-106	99	2	13.7	9,930	-	-	-	-

Marys River near Death, Nev.
(Drainage area, 355 square miles)

1912	330-188	-	-	-	-	439	2	70.0	60,900
1913	360-207	205	-	44.5	32,200	205	3	46.5	33,000
1914	390-236	402	5	90.2	65,300	402	5	88.4	64,000
1915	410-158	94	2	18.6	13,500	94	2	19.4	14,000
1916	440-245	381	1	68.2	49,500	381	1	68.5	49,700
1917	460-199	420	-	78.6	57,000	420	-	78.7	57,100
1918	480-177	130	1	31.5	22,800	130	1	30.0	21,700
1919	510-221	286	1	39.2	28,400	286	1	38.6	28,000
1920	510-221	239	1	32.3	23,400	239	1	34.0	24,600
1921	530-126	530	1	98.7	71,500	530	3	99.1	71,800
1922	560-128	616	0	71.8	52,000	616	0	70.4	51,000
1923	570-110	223	3	42.8	31,000	223	3	43.5	31,500
1924	590-108	102	0	17.5	12,700	102	0	16.8	11,500
1926	610-108	410	1	55.2	39,900	410	3	55.9	40,500
1928	630-116	136	1	19.6	14,200	136	1	19.0	13,800
1927	660-74	428	-	54.6	39,400	428	-	55.8	40,300

South Fork of Humboldt River near Elko, Nev.
(Drainage area, 1,160 square miles)

1897	(a)	1,330	2	217	168,000	1,330	2	224	163,000
1898	(b)	473	-	120	86,400	473	-	114	82,200
1899	(c)	1,370	6	230	166,000	1,370	19	255	170,000
1900	(d)	740	1	154	97,400	740	1	132	96,700
1901	75-132	1,490	4	115	111,000	1,480	4	127	112,000
1902	85-101	1,380	0	214	155,000	1,380	0	223	161,000
1903	100-161	1,170	2	195	140,000	1,170	2	176	127,000
1905	176-72	816	0	121	87,800	816	0	123	89,500
1906	212-54	1,400	0	211	162,000	1,400	0	210	162,000
1907	260-96	1,260	0	242	175,000	1,260	0	248	180,000
1908	260-96	850	16	107	77,300	850	16	103	74,400
1909	270-104	1,090	2	140	101,000	1,090	2	143	103,000
1911	330-193	856	0	82.2	59,300	856	0	82.8	59,700
1912	330-193	1,470	5	162	117,000	1,470	8	168	122,000
1913	360-215	632	6	104	75,300	632	6	101	73,500
1914	390-242	2,400	2	199	144,000	2,400	2	195	142,000
1915	410-166	341	0	36.3	26,300	341	0	34.3	24,800
1916	440-252	388	0	68.1	49,500	388	0	70.8	51,400

a 19th Ann. Rept., pt. 4, p. 429.

b 20th Ann. Rept., pt. 4, p. 440.

c 21st Ann. Rept., pt. 4, p. 391.

d 22d Ann. Rept., pt. 4, p. 400.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Humboldt-Carson Sink Basin--Continued

Humboldt River Basin--Continued

South Fork of Humboldt River near Elko, Nev.--Continued
(Drainage area, 1,150 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year				
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1917	460-208	1,450	0	162	118,000	1,450	0	163	118,000
1918	480-188	297	0	34.8	26,200	-	-	-	-
1924	590-111	430	0	56.4	41,000	430	0	50.3	36,500
1925	610-109	815	-	127	91,800	815	-	130	94,000
1926	630-118	218	0	40.5	29,400	218	0	36.9	26,800
1928	670-73	1,370	0	70.6	51,300	1,370	0	69.2	50,800
1929	690-71	1,410	0	64.7	46,800	1,410	0	64.7	46,800
1930	705-76	475	0	81.7	59,200	475	0	85.4	66,400
1931	720-79	48	0	16.3	11,600	48	0	10.9	7,850
1932	735-88	1,490	0	231	168,000	-	-	-	-
1937	830-79	746	-	91.7	66,400	746	-	89.8	65,040
1938	860-84	745	1	98.7	71,480	745	1	106	76,870
1939	880-101	448	2	94.9	68,680	-	-	-	-

Martin Creek near Paradise Valley, Nev.

1922	550-141	268	-	39.2	28,400	268	-	39.1	28,400
1925	670-119	85	5	19.0	13,700	85	-	19.3	14,000
1924	590-116	46	-	12.1	9,800	46	-	16.3	6,930
1925	610-114	-	6	23.3	16,900	-	6	23.5	17,000
1926	630-121	112	7	24.3	17,600	-	-	-	-
1928	670-76	-	2	28.5	20,700	-	2	26.8	19,600
1929	690-73	74	4	15.6	11,300	74	4	15.8	11,400
1930	705-77	-	4	18.7	13,500	-	4	18.6	13,400
1931	720-80	28	-	8.2	5,910	28	-	7.8	5,610
1932	735-89	350	3	45.8	33,200	350	3	46.6	33,800
1933	750-84	108	6	18.6	13,500	108	-	18.4	13,300
1934	765-79	-	-	11.9	8,640	-	-	11.5	8,540
1935	790-76	202	-	29.5	21,360	202	0	29.4	21,300
1936	810-75	183	-	27.4	19,910	183	-	27.6	20,060
1937	830-80	195	4	22.9	16,590	195	4	23.1	16,700
1938	860-85	387	4	47.3	34,240	387	4	47.9	34,680
1939	880-102	208	3	21.8	15,760	-	-	-	-

PYRAMID AND WINNEMUCCA LAKES BASIN

Truckee River at Tahoe, Calif.
(Drainage area, 519 square miles)

1901	300-92	555	0	133	96,700	555	0	156	113,000
1902	300-92	445	25	174	127,000	445	25	204	148,000
1903	300-92	426	13	214	156,000	445	13	205	149,000
1904	300-92	931	13	536	390,000	931	13	629	467,000
1905	300-92	790	15	397	289,000	822	15	301	218,000
1906	300-93	838	229	498	360,000	838	229	589	428,000
1907	300-93	1,540	392	908	657,000	1,340	453	971	704,000
1908	300-93	1,210	19	528	384,000	775	19	369	267,000
1909	300-93	869	35	454	328,000	890	-	488	353,000
1910	300-93	898	108	481	348,000	898	108	441	319,000
1911	300-94	861	145	433	313,000	861	145	452	328,000
1912	330-200	617	18	257	187,000	617	18	239	173,000
1913	360-224	520	5	234	169,000	520	5	235	171,000
1914	390-256	618	0	204	148,000	652	0	244	177,000
1915	410-177	652	5	264	191,000	552	5	220	159,000
1916	440-267	1,010	12	269	195,000	1,160	12	288	209,000
1917	460-219	1,160	23	386	280,000	1,100	23	373	270,000
1918	480-199	725	0	314	228,000	725	0	300	217,000
1919	510-247	725	0	265	192,000	725	0	281	204,000
1920	510-247	518	0	245	178,000	518	0	197	143,000
1921	530-143	465	0	145	105,000	465	0	165	120,000
1922	550-149	467	0	226	164,000	467	0	259	188,000
1923	570-126	490	0	249	174,000	490	0	233	172,000
1924	590-122	402	0	245	178,000	402	0	171	124,000
1925	610-121	476	0	81.3	58,900	476	0	85.4	67,600
1926	630-123	384	0	86.7	62,800	384	0	66.4	46,100
1927	650-83	429	0	84.6	61,300	429	0	140	101,000
1928	670-81	490	0	228	165,000	490	0	208	151,000
1929	690-78	315	0	107	77,500	255	0	83.9	60,700
1930	720-86	304	0	70	50,800	304	0	61.8	44,800
1931	720-86	59	0	6.47	4,690	1.0	0	1.0	78
1932	735-93	172	0	22.1	16,000	172	0	23.5	17,000
1933	750-88	50	0	7.12	5,150	50	0	5.75	4,150
1934	765-82	288	0	56.7	41,100	288	0	62.2	45,010
1935	790-81	51	0	11.0	7,820	50	0	5.48	3,960
1936	810-78	471	0	88.0	63,920	471	0	118	85,900
1937	830-84	466	0	148	107,400	466	0	144	104,500
1938	860-106	505	0	133	96,420	505	0	184	132,900
1939	880-106	490	0	309	223,900	-	-	-	-

Note.- Flow regulated by storage in Lake Tahoe.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Pyramid and Winnemucca Lakes Basin--Continued

Truckee River at Iceland, Calif.
(Drainage area, 937 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30			Calendar year				
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1900	300-106	1,885	205	612	444,000	1,885	205	625	452,000
1901	300-106	4,370	205	936	677,000	4,370	230	938	678,000
1902	300-106	3,596	247	754	545,000	3,596	268	751	543,000
1903	300-106	3,211	280	718	520,000	3,211	280	753	545,000
1904	300-107	6,730	230	1,560	1,130,000	6,730	230	1,650	1,200,000
1905	300-107	2,090	444	881	638,000	2,090	300	756	547,000
1906	300-107	5,410	300	1,360	984,000	5,410	309	1,420	1,030,000
1907	300-107	15,300	490	1,980	1,430,000	15,300	645	2,090	1,520,000
1908	300-107	1,970	360	938	681,000	1,870	310	762	552,000
1909	300-108	8,110	310	1,400	1,010,000	8,110	385	1,530	1,110,000
1910	300-108	3,890	385	1,090	790,000	3,890	385	974	705,000
1911	300-108	5,830	385	1,540	1,110,000	5,830	385	1,550	1,130,000
1912	330-203	2,230	330	603	438,000	2,230	330	578	420,000
1913	360-225	1,875	335	593	429,000	1,875	330	590	426,000
1914	390-257	4,280	330	1,170	846,000	4,280	380	1,210	874,000
1915	410-179	4,470	375	820	595,000	4,470	358	784	567,000
1916	440-268	4,370	358	1,110	807,000	4,370	390	1,140	825,000
1917	460-221	3,550	390	979	705,000	3,650	359	959	694,000
1918	480-200	2,070	359	679	491,000	2,070	371	683	494,000
1919	510-249	4,370	358	806	583,000	4,370	358	798	577,000
1920	510-249	2,030	222	565	410,000	2,030	175	536	389,000
1921	530-145	2,100	175	695	503,000	2,100	203	700	507,000
1922	550-150	4,670	203	872	631,000	4,670	317	898	650,000
1923	570-127	2,620	379	720	521,000	2,620	372	715	517,000
1924	590-124	767	122	372	270,000	767	50	302	219,000
1925	610-122	3,430	40	490	355,000	3,430	40	509	369,000
1926	630-129	1,590	75	321	275,000	1,590	56	373	270,000
1927	650-84	3,700	56	849	614,000	3,700	168	910	658,000
1928	670-82	12,000	341	701	509,000	12,000	172	658	477,000
1929	690-79	1,480	145	362	262,000	1,480	124	353	255,000
1930	720-88	1,720	85	477	345,000	1,720	61	454	328,000
1931	720-88	888	46	184	133,000	888	42	176	127,000
1932	735-94	2,950	42	537	390,000	2,950	75	538	391,000
1933	750-89	2,010	37	286	207,000	2,010	37	289	209,000
1934	765-83	2,500	54	286	207,000	2,500	60	287	207,800
1935	790-82	2,640	49	515	375,000	2,640	49	508	369,100
1936	810-79	3,514	51	674	489,200	3,310	99	699	507,200
1937	830-85	2,340	96	570	412,600	12,300	157	676	469,100
1938	880-108	-	-	-	-	-	-	-	-

Note.- Records for period 1900 to August 1912 collected at several sites downstream near Nevada-California State line.

Truckee River at Reno, Nev.
(Drainage area, 1,070 square miles)

1907	270-117	14,600	185	1,900	1,370,000	14,600	520	1,980	1,430,000
1908	270-117	1,660	125	719	522,000	1,660	125	562	407,000
1909	270-117	8,540	155	1,290	933,000	8,540	220	1,420	1,030,000
1910	290-188	4,580	215	984	712,000	3,360	215	864	626,000
1911	310-132	6,060	215	1,420	1,020,000	6,060	215	1,430	1,030,000
1912	330-204	1,670	18	392	285,000	1,670	18	348	253,000
1913	360-226	1,520	19	394	286,000	3,360	19	397	288,000
1914	390-257	5,690	79	1,130	818,000	5,590	109	1,170	849,000
1915	410-179	3,900	36	627	455,000	3,900	36	581	421,000
1916	440-268	5,020	88	962	699,000	5,020	129	997	723,000
1917	460-221	3,680	152	822	595,000	3,680	99	787	570,000
1918	480-200	2,040	76	480	348,000	2,040	76	491	356,000
1919	510-249	4,060	97	630	456,000	-	-	-	-

Donner Creek near Truckee, Calif.
(Drainage area, 30 square miles)

1903	300-119	-	-	-	-	352	1.0	77	55,800
1904	300-119	709	1	158	115,000	709	2.5	155	112,000
1905	300-119	290	2	65.0	47,100	290	0	59.6	43,300
1906	300-119	698	0	133	96,600	698	0	136	99,000
1907	300-119	980	0	139	101,000	980	5	138	100,000
1908	300-120	224	5	52.5	36,000	224	2.0	51.7	37,500
1909	300-120	812	1	83.7	60,900	862	1.0	111	80,700
1910	300-120	862	1	96.5	71,500	365	1.2	71.6	51,900
1911	330-211	870	1.2	124	90,000	670	2.0	124	89,800
1912	330-211	350	8	39.6	28,700	350	0	38.8	28,100
1913	360-231	278	0	19.2	13,900	278	0	19.0	13,800
1929	750-93	266	1	38.4	27,900	266	1	40.6	29,500
1930	750-94	287	1	55.6	40,200	287	1	58.0	39,800
1931	750-94	152	1	25.6	18,600	152	3	28.0	20,300
1932	750-94	522	1	70.1	50,900	522	1	70.9	51,500
1933	750-94	410	2	46.2	33,600	410	2	42.6	30,900
1934	765-84	415	2	41.3	29,900	415	2	40.1	29,000
1935	790-83	470	2	72.5	52,490	-	-	-	-
1936	810-80	-	-	-	-	653	4	86.3	62,650
1937	880-111	387	4	61.8	44,710	1,578	4	77.9	56,400
1938	880-111	1,593	4	113	85,510	200	4	105	75,960
1939	880-111	275	3	32.1	-	-	-	-	-

Note.- Flow regulated since 1927 by storage in Donner Lake.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in
WARNER LAKES BASIN

Deep Creek above Adel, Oreg.
(Drainage area, 249 square miles)

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1923	570-127	392	-	95.1	68,800	-	-	-	-
1930	(*)	246	-	67.8	49,064	245	-	64.9	47,000
1931	(*)	230	-	25.0	18,100	230	-	24.8	17,940
1932	(*)	1,160	5	88.0	63,800	1,160	5	88.0	63,820
1933	760-95	310	4	47.3	34,200	310	4	47.7	34,470
1934	765-85	393	1.8	29.8	21,617	393	1.8	30.2	21,870
1935	790-84	1,420	3.2	117	85,010	1,420	6	117	84,910
1936	810-81	1,020	7	118	85,320	1,020	7	117	85,070
1937	830-86	1,560	4.8	75.9	54,950	1,560	4.8	102	74,020
1938	860-89	3,500	6.9	207	157,200	1,100	14	186	134,520
1939	880-114	665	5.4	62.7	45,400	-	-	-	-

*From reports of State engineer.

Deep Creek at Adel, Oreg.
(Drainage area, 274 square miles)

1910	370-739	2,500	7	194	141,000	-	-	-	-
1911	330-225	1,260	11	168	122,000	1,260	-	149	108,000
1912	330-225	1,260	4	173	125,000	1,260	4	176	127,900
1913	360-252	1,340	6	151	110,000	1,340	6	150	108,400
1914	390-268	1,180	4.4	153	111,000	1,180	+4	152	110,200
1915	410-197	470	2	76.4	54,600	470	2.0	74.9	54,270
1918	480-228	-	-	-	-	705	2.7	61.5	44,560
1919	510-276	1,600	1.4	107	77,600	-	-	-	-
1922	550-155	1,290	2.0	126	91,400	1,290	2.0	-	91,630

ABERT LAKE BASIN

Chewaucan River above Conn ditch, near Paisley, Oreg.

1905	370-748	-	-	-	-	332	19	95.5	67,710
1906	370-748	1,000	23	187	136,000	1,000	23	189	136,800
1907	370-748	-	19	294	211,000	-	-	-	-
1910	370-748	3,500	-	233	169,000	1,530	-	168	121,300
1911	(*)	992	27	202	146,000	992	35	199	143,900
1912	(*)	760	-	140	102,000	-	-	145	105,000
1913	360-261	855	-	162	117,000	855	-	159	114,900
1914	390-262	1,120	32	192	139,000	1,120	-	193	139,500
1915	410-212	301	22	88.0	63,800	301	20	84.5	61,220
1916	440-281	715	20	146	106,000	715	17	145	105,600
1917	460-228	990	17	163	118,000	990	26	166	120,000
1918	480-230	325	23	79.6	57,700	325	23	76.7	55,520
1919	510-279	570	20	103	74,800	570	18	103	74,400
1920	510-279	328	15	62.5	45,400	300	15	70.9	51,400
1921	530-152	-	-	197	145,000	-	-	-	-
1925	610-122	830	-	120	86,600	830	20	120	86,810
1926	630-130	170	9	44.8	32,500	170	9	49.7	35,040
1927	650-85	1,350	-	188	136,000	1,350	5	188	136,100
1928	670-83	772	-	131	94,500	772	17	125	90,640
1929	690-80	315	-	161.1	144,200	315	17	65.5	47,400
1930	705-83	319	-	80.4	58,300	319	1	72.3	52,360
1931	720-89	162	-	34.1	21,700	162	6	35.3	25,560
1932	735-95	858	15	102	74,200	858	-	102	74,010
1933	760-96	586	-	76.1	55,100	586	15	77.9	56,340
1934	765-86	471	7	55.5	40,180	471	7	55.8	40,370
1935	790-85	560	16	105	76,230	560	-	103	74,330
1936	810-82	874	-	134	97,330	874	16	134	97,440
1937	830-87	719	16	86.8	62,820	1,200	19	102	73,550
1938	860-90	1,360	23	223	161,200	1,360	22	213	154,100
1939	880-115	395	12	75.8	54,860	-	-	-	-

*From reports of State engineer.

Revised.

Erroneous figures published in Water-Supply Paper 690. Corrected mean discharge for December, 40.3 second-feet (run-off, 2,460 acre-feet).

Note.- Records for periods 1905-7 and 1910-21 collected at several sites in vicinity of site used after 1924. Records equivalent.

SILVER LAKE BASIN

Silver Creek near Silver Lake, Oreg.

1905	370-758	-	-	-	-	203	13	35.5	25,700
1906	370-758	530	7	56.3	40,500	530	5	54.9	39,760
1909	370-758	-	-	-	-	865	11	64.9	46,950
1910	370-758	473	11	73.4	53,100	473	11	62.8	46,500
1911	8310-163	576	-	61.9	44,800	576	-	62.5	45,300
1912	330-243	309	-	44.2	32,000	309	11	43.0	31,240
1913	360-266	337	8	44.0	31,800	337	7.8	43.2	31,270
1914	390-283	350	7.8	52.0	37,700	350	5	51.4	37,200
1915	410-230	86	.8	16.0	11,600	86	.8	14.3	10,240

*Records for October to December 1910 in Water-Supply Paper 290, p. 219.

YEARLY-DISCHARGE SUMMARY

Summary of yearly discharge, in second-feet, at stations in Silver Lake Basin--Continued
Silver Creek near Silver Lake, Oreg.--Continued

Year	W.S.P. (no. and page)	Water year ending Sept. 30				Calendar year			
		Maximum day	Minimum day	Mean	Run-off in acre-feet	Maximum day	Minimum day	Mean	Run-off in acre-feet
1916	440-295	710	0.8	49.0	35,700	710	-	50.1	35,560
1917	460-242	400	-	31.0	22,400	400	-	30.3	21,960
1918	490-244	204	0.3	13.2	9,540	204	0.3	12.3	8,920
1919	510-297	325	1.0	24.7	17,800	325	-	24.9	18,020
1920	510-297	110	0.4	10.1	7,540	110	0.4	11.2	8,100
1921	530-161	295	1.1	47.1	34,200	295	1.4	46.6	33,800
1922	550-158	343	0.5	19.2	13,900	343	0.5	18.5	13,410
1923	610-125	45	-	11.2	8,100	45	-	11.2	8,130
1924	610-125	11	-	2.91	2,110	11	-	3.07	2,230
1925	610-125	122	-	13.0	9,440	122	-	13.0	9,450
1926	630-131	15	0.3	3.83	2,770	15	-	3.74	2,710
1927	650-86	223	-	23.9	17,300	-	-	-	-
1930	705-84	25	-	5.41	3,910	25	-	5.32	3,850
1931	720-90	15	0	2.35	1,710	15	0	2.24	1,620
1932	735-96	43	0	9.83	7,140	43	-	9.89	7,190
1933	750-97	35	1.2	8.03	5,810	35	0.4	8.07	5,940
1934	765-87	15	0	3.17	2,290	15	0	3.13	2,270
1935	790-86	49	0	8.87	6,410	49	-	8.96	6,480
1936	810-83	39	-	8.81	6,400	39	-	8.68	6,300
1937	830-88	37	-	8.23	5,960	37	0	8.29	6,000
1938	850-91	324	0	22.5	17,100	324	1.1	24.1	17,440
1939	880-116	33	1.1	7.01	5,080	-	-	-	-

†Not previously published.

Silver Lake Irrigation District canal near Silver Lake, Oreg.

1923	610-130	60	0	6.75	4,890	60	0	6.75	4,890
1924	610-130	0	0	0	0	0	0	0	0
1925	610-130	48	0	7.79	5,660	48	0	7.79	5,660
1926	630-136	29	0	2.16	1,580	29	0	2.16	1,580
1927	650-89	34	0	7.55	5,460	34	0	7.55	5,460
1928	670-87	30	0	6.98	5,070	30	0	6.98	5,070
1930	705-85	28	0	1.57	1,140	28	0	1.57	1,140
1931	720-91	0	0	0	0	0	0	0	0
1932	735-97	33	0	5.73	4,160	33	0	5.73	4,160
1933	750-98	30	0	4.36	3,150	30	0	4.36	3,150
1934	765-88	19	0	4.93	3,377	19	0	4.93	3,357
1935	790-87	39	0	5.19	3,760	39	0	5.19	3,780
1936	810-84	33	0	5.40	3,920	33	0	5.40	3,920
1937	830-89	30	0	4.76	3,450	30	0	4.76	3,450
1938	850-92	37	0	8.64	6,260	37	0	8.64	6,260
1939	880-117	35	0	5.79	4,190	-	-	-	-

MALHEUR AND HARNEY LAKES BASIN

Silvies River near Burns, Oreg.

1904	370-783	4,730	6	415	299,000	4,730	6	415	301,160
1905	370-783	-	-	104	75,400	-	9	100	72,605
1909	370-783	-	-	-	-	980	8	137	98,700
1910	370-783	3,050	4	209	152,000	3,050	4	217	152,000
1911	*310-170	914	4	101	75,000	914	4	59.4	71,900
1912	330-248	1,550	-	239	173,000	1,550	-	241	175,000
1918	†480-245	574	-	87.2	42,100	574	3	76.5	55,430
1919	510-304	1,460	8	157	114,000	1,450	8	160	116,200
1920	510-304	1,020	1	111	80,600	1,020	1	108	78,060
1921	†530-169	-	-	347	252,000	-	-	-	-
1923	570-137	924	10	112	81,200	924	10	111	80,270
1924	590-124	640	-	49.1	35,700	640	7.7	46.8	33,960
1926	610-131	370	7	166	120,000	370	7	170	123,400
1928	630-37	538	1	68.9	49,800	538	1	87.8	49,040
1927	650-90	1,590	6	183	132,000	1,590	8	183	132,800
1928	670-88	1,250	5.6	173	126,000	1,250	5.6	170	123,800
1929	690-82	442	4	74.9	54,200	442	4	76.5	55,400
1930	705-86	304	0.5	30.2	21,800	304	0.5	28.6	19,290
1931	720-92	809	1.1	30.5	22,100	809	1.1	29.4	21,350
1932	735-98	1,060	1.2	136	98,600	1,060	1.2	137	99,490
1933	750-99	612	1.0	71.0	52,100	612	1.0	73.3	53,100
1934	765-89	51	0	15.0	10,870	51	0	14.6	10,550
1935	790-88	811	0.7	61.0	44,170	811	0.7	59.3	49,940
1936	810-85	1,500	-	93.1	67,580	1,500	2.3	93.9	68,140
1937	830-90	827	2	74.8	54,180	827	2	63.7	60,600
1938	850-93	1,760	4	230	166,500	1,760	7	224	162,300
1939	880-118	1,180	2	105	75,970	-	-	-	-

*Records for October to December 1910 in Water-Supply Paper 290, p. 236.

†Discharge for part of year estimated to complete the record.

Donner und Blitzen River near Frenchglen (Diamond), Oreg.
(Drainage area, 180 square miles)

1912	330-250	1,560	-	179	130,000	1,560	-	183	132,600
1913	360-271	1,590	-	127	92,100	-	-	-	-
1915	410-233	1,440	-	116	84,100	1,440	-	112	80,770
1916	440-303	1,820	23	132	96,100	-	-	-	-
1918	480-248	442	26	87.2	63,200	442	26	85.1	61,600
1919	510-308	785	27	106	76,700	785	-	126	76,580
1920	510-308	710	29	120	86,800	1,190	31	131	95,480
1921	530-173	1,590	37	192	139,000	-	-	-	-
1938	860-94	-	-	-	-	740	28	144	104,240
1939	880-119	761	28	96.2	69,670	-	-	-	-

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